

**PETROLANE**

**Petrolane LP-Gas  
Training Certification  
Container Inspection, Filling, Handling And Operation**

Date 4-20-93

Company/Customer Name Westgate's Carbon

Street Address 2523 mutahar Ave

City Parker

State Arizona

**Certification of Instruction**

The undersigned person(s) certify that they received instruction in the proper methods of inspecting, filling, handling and operating procedures of LP-gas containers from Ellis James

Petrolane instructor's name

of Parker Arizona

on this date, 4-20, 19 93

Petrolane district (city and state)

Name RAY F. DeLeon

Title Warehouse

Name Jefford Pablo

Title Warehouse

Name Curtis Laird

Title Warehouse

Name Delton Griffith

Title Plant Foreman

ROBERT SONGER

MAINTENANCE

THOMAS MCGILVER

Maintenance

**Owner/Manager Agreement to Instruct Employees**

I, Delton Griffith, of Westgate's Carbon

owner

company name

agree to train (or cause to be trained) employees in the proper handling of LP-gas before allowing them to inspect, fill, handle, and operate LP-gas containers. The LP-gas Filling Instructions printed on the reverse side of this form shall be the training guide and shall be adopted as standard operating procedure.

Signature [Signature]

Date 4-20-93

**Placement of Filling Instruction Inspection Procedure Decal(s)**

I, Ellis James

Petrolane representative

, certify that I

installed the Petrolane LP-gas Filling Instructions, Decal Nos. S-704A/B 12/80, in a proper and conspicuous place at the LP-gas point of transfer.

Signature [Signature]

Date 4-20-93

# LP-GAS FILLING INSTRUCTIONS

## Preliminary Procedures

1. Stop vehicle engine. Set emergency brake.
2. Extinguish all open flames in vehicle.  
**CHECK TO INSURE ALL BURNERS AND PILOTS ARE EXTINGUISHED.**
3. Extinguish all smoking materials.
4. Require passengers to leave vehicle during filling.
5. Determine that container is not already full by observing discharge from outage gauge or weight of container and contents.
6. Carefully inspect container to insure it is in good condition and approved for LP-gas service. Do not fill container if defects are found.
7. Fill only containers with DOT, ICC or ASME nameplates or markings.
8. Fill only containers which have required protective cap or protective housing to prevent physical damage to valves.
9. Insure that containers are equipped with a safety relief valve communicating with the vapor space. Safety relief valve discharge vent must be capped to prevent entrance of water or dirt.
10. Inspect all container valves for leakage at time of filling. A leaking container cannot be filled.

## Filling Procedures

1. Always wear proper protective gloves.
2. "Zero" meter register.
3. Remove protective cap on container filler valve.
4. Connect hose coupling to container filler valve.
5. Open main liquid valve at storage tank.
6. Turn on transfer pump.
7. Open valve on container if so equipped.
8. Slowly open hose end valve (no more than 2 turns if globe or angle valve).
9. Check entire system for leaks.
10. If filling by volume:
  - a. Open maximum liquid level (outage) gauge approx. one quarter turn until gas starts to vent.
  - b. Fill container until liquid (visible cloud) vents from outage gauge, then close hose end valve immediately. Shut off transfer pump.
  - c. Close outage gauge.
11. If filling by weight:
  - a. Set scale to calculated weight of container and contents plus hose and connector.
  - b. Fill container until legal weight is reached. Immediately close hose end valve. Shut off transfer pump.
12. **DO NOT OVERFILL CONTAINER. ADEQUATE VAPOR SPACE MUST BE LEFT IN CONTAINER TO ALLOW FOR EXPANSION OF THE LIQUID. IF OVER-FILLED, BLEED OFF EXCESS LP-GAS IN SAFE LOCATION.**
13. Close valve on container if so equipped.
14. Partially loosen hose coupling at container filler valve and bleed off trapped liquid. When depressured, disconnect hose coupling.
15. When filling by weight, check weight of filled container after hose connector has been removed.
16. Replace protective cap on container filler valve.
17. Check that outage gauge is closed tight.
18. Close main liquid valve at storage tank.
19. Store hose properly with hose connector plugged.

**A QUALIFIED ATTENDANT MUST BE PRESENT AT ALL TIMES DURING FILLING OPERATION**

## Container Inspection Procedures

### DOT Cylinder Inspection

1. These common DOT (formerly ICC) specification cylinders can be filled with propane: 4B-240, 4BA-240, 4BV-240, 4E-240 and 26-300. Digits indicate service pressure for propane. Cylinders marked for higher pressures can be used.
2. **INSURE THAT TEST DATE STAMPED ON CYLINDER IS CURRENT. GOVERNMENT REGULATIONS, 49 CFR 173.34, REQUIRE RETEST OR REQUALIFICATION ON THESE DATES:**
  - a) 12 years after manufacture when a letter does not follow the latest test date on the cylinder (typical mark, 6-80).
  - b) 7 years after the latest test date when followed by "S" (typical mark, 6-80S).
  - c) 5 years after the latest test date when followed by "E" (typical mark, 6-80E).
3. Examine cylinder to insure it is not gouged or dented, has not been exposed to fire or is not excessively corroded. Special attention shall be paid to the bottom of cylinder.
4. Inspect foot ring to determine if it will support cylinder properly in a stable position.
5. Check for leaks. All seams and openings shall be inspected.

### ASME Tank Inspection

1. Check for required ASME nameplate. Fill only ASME code tanks having design pressure of 250 psi or greater. If tank is in enclosed space (such as vehicle trunk) or used on industrial trucks, design pressure must be 312.5 psi or greater.
2. Examine tank to insure it is not gouged, dented, or bulged, has not been exposed to fire and is not corroded.

## Determination of Container Weight Capacity

Scale used for container filling must be checked daily with test weights

### Calculations Required When Filling

#### DOT Cylinders by Weight

1. Check tare (empty) weight (TW) and water weight capacity (WC) of the cylinder. These numbers are stamped on the cylinder body or collar.
2. Calculate propane weight in pounds by multiplying water weight capacity (WC) by 0.42.
3. Place hose connector and hose end valve on scales to determine weight of assembly.
4. Add TW, propane weight (see 2 above) and hose assembly weight to determine legal filled weight of cylinder.
5. Example:

What is legal filled weight of 100# cylinder with TW 70 and WC 239?  
Weight of hose connector and hose is 5 lbs.  
Weight =  $70 + 5 + (239 \times 0.42)$   
=  $70 + 5 + 100$   
= 175 lbs.

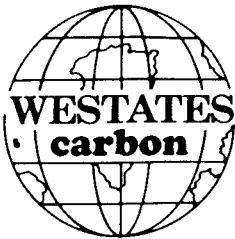
### Calculations Required When Filling

#### ASME Tanks by Weight

1. Determine tare (empty) weight and water volume capacity (WC GALS) of tank.
2. Calculate propane weight in pounds by multiplying water volume capacity (WC) in gallons X 0.80 X 4.2. (Tanks can be filled only to 80% level; one gallon of propane weighs approx. 4.2 pounds per gallon at 60°F.)
3. Place hose connector and hose end valve on scales to determine weight of assembly.
4. Add weight of the empty tank (TW), propane weight (see 2 above) and hose assembly weight to determine legal filled weight of tank.
5. Example:

What is legal filled weight of 7.8 gallon fork lift cylinder with TW of 43 lbs.?

Weight of hose connector and hose is 5 lbs.  
Weight =  $43 + 5 + (7.8 \times 0.8 \times 4.2)$   
=  $43 + 5 + 26.2$   
= 74.2 lbs.



2130 LEO AVENUE • LOS ANGELES, CALIFORNIA • 90040-1634  
TELEPHONE (213) 722-7500 • TWX 910-321-2355 • FAX (213) 722-8207

*A Wheelabrator Technologies Company*

## MEMORANDUM

DATE: March 16, 1993  
TO: Monte McCue  
FROM: John Castillo  
SUBJECT: Forklift Operator Training Course

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As of March 12, 1993, Westates Carbon - Parker has been certified as OSHA trained forklift operators.

They were given two tests:

- 1 - Written test
- 2 - Performance test

The names of the successful candidates are listed on the following page.

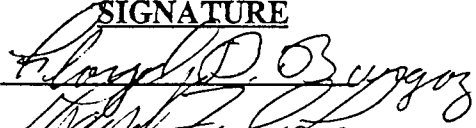
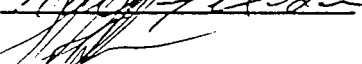
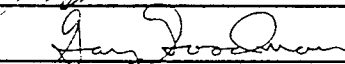
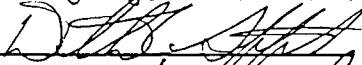
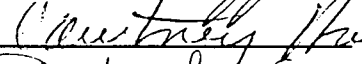
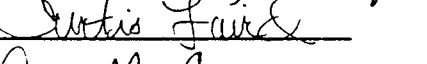
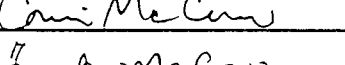
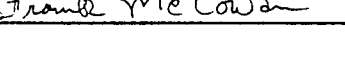
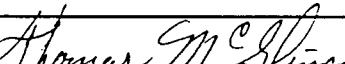
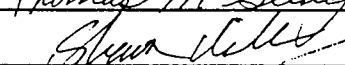
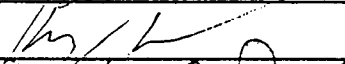

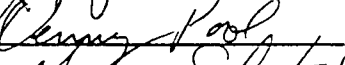

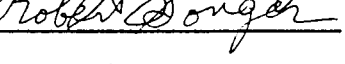
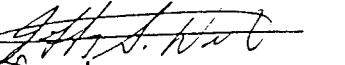

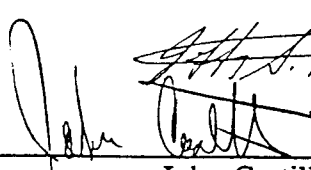
cc: B. Heath  
D. Stanton  
J. Walsh

JC:tgw  
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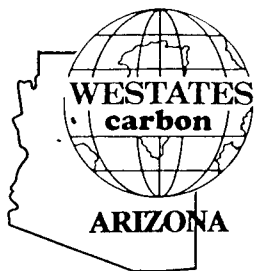
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WESTATES CARBON, INC.  
PARKER, ARIZONA

FORKLIFT OPERATORS  
TRAINING COURSE

| <u>EMPLOYEE NAME</u>  | <u>SIGNATURE</u>   | <u>DATE</u> |
|---|--|-------------|
| Floyd Burgoz  |    | 3-12-93     |
| Ray DeLeon  |     | 3/12/93     |
| Hector Duran  |     | 3-12-93     |
| Gary Goodman  |    | 3-12-93     |
| Delton Griffith   |   | 3-12-93     |
| Courtney Harper   |  | 3/12/93     |
| Curtis Laird  |   | 3-12-93     |
| Corwin McCowan  |   | 3-12-93     |
| Frank McCowan   |   | 3-12-93     |
| Monte McCue   |  |             |
| Thomas McGlinchy  |   | 3/12/93     |
| Shawn Miller  |   | 3/12/93     |
| Kenneth Moore   |   | 3-12-93     |
| Jefford Pablo   |   | 3/12/93     |
| Denny Pool  |   | 3-12-93     |
| Gregory Shortey   |   | 3-12-93     |
| Robert Songer   |   | 3/12/93     |
| Jeffrey S. Walsh  |   |             |
| INSTRUCTOR:  | John Castillo  |             |



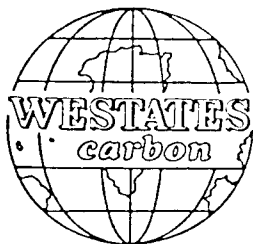


2523 MUTAHARA STREET • P.O. BOX E • PARKER, AZ 85341  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

## **RESPONSIBILITIES OF THE LEAD WAREHOUSE PERSON**

1. Organizes and directs incoming/outgoing shipments.
2. **INCOMING SHIPMENTS**
  - A. Leads the MSDS roundtable meeting.
  - B. Coordinates warehouse storage for necessary containers.
  - C. Reviews all container labels prior to acceptance.
  - D. Reviews all "sample" paperwork prior to acceptance.
  - E. Oversees actions being carried out by the Assistant Lead Warehouse Person and Material Handlers.
3. **OUTGOING SHIPMENTS**
  - A. Reviews analytical with the Environmental Coordinator.
  - B. Coordinates product procedure rotation.
  - C. Assures quality control.
4. Enforce policies and procedures.
5. Maintain warehouse standards at a high level.
6. Monitors all facility storage tanks to avoid mishaps.
7. Supervises material handlers and assistant warehouse person on a day-to-day basis.
8. Assumes laboratory technician responsibilities when needed.
9. Works closely with the Environmental Coordinator to ensure federal and tribal regulatory compliance.
10. Additional duties as required by supervisor.
11. Reports to the Environmental Coordinator.



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• **PARKER PLANT** • 2523 MUTAHAR STREET, PARKER, ARIZONA 85344  
TELEPHONE: (602) 669-5758  
FAX: (602) 667-3835

May 11, 1992

POSITION: LEAD WAREHOUSE PERSON 1 position

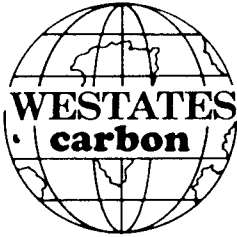
SALARY: \$8.50 / hour

RESPONSIBILITIES:

- 1.) Unload and load carbon from trucks.
- 2.) Check incoming drums for leaks and condition.
- 3.) Manifest inspections.
- 4.) Shipping and receiving clerk.
- 5.) Warehouse inventory control.
- 6.) Warehouse housekeeping.

QUALIFICATIONS:

- 1.) Minimum high school diploma.
- 2.) Excellent communication and organizational skills.
- 3.) 5 years industrial warehouse experience.
- 4.) Prefer hazardous material manifest knowledge.
- 5.) Forklift experience.
- 6.) Pass Company physical examination.



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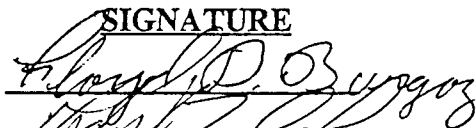
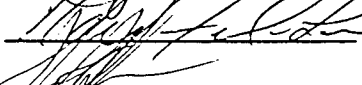
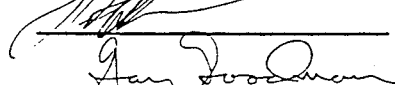
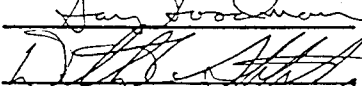
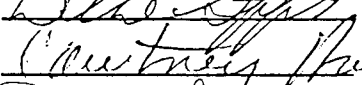
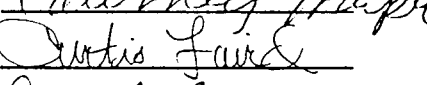
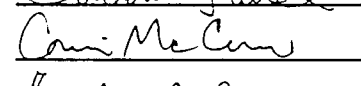
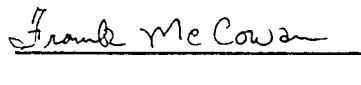
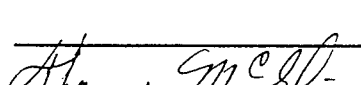
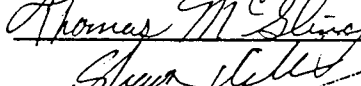
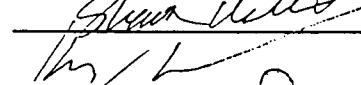
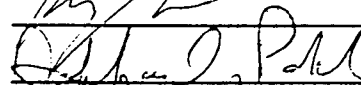
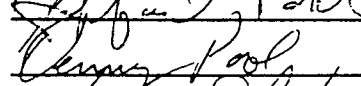
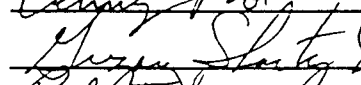
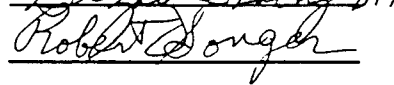
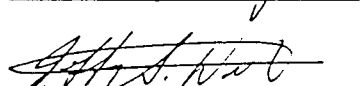
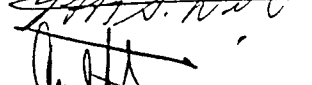
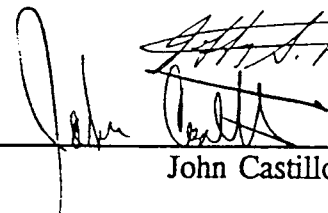
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JC:tgw  
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| Jeffrey S. Walsh  |   | 3/12/93     |
| INSTRUCTOR:  | John Castillo  |             |

SAFELY HANDLING OF LPG

1. SHUT OFF FORK LIFT MOTOR---NO SMOKING.
2. WEAR GLOVES TO PREVENT HAND INJURY.
3. CLOSE FORK LIFT FUEL LINE VALVE.
4. CLOSE BULK LPG TANK'S VALVE.
5. DISCONNECT FORK LIFT FUEL LINE FROM LPG TANK.
6. CONNECT THE BULK FUEL LINE TO THE FORK LIFT TANK.
7. OPEN THE FORK LIFT AND BULK FUEL LINE VALVES.
8. OPEN AIR BLEEDER VALVE ON FORK LIFT TANK.
9. START BULK FUEL PUMP TO TRANSFER FUEL.
10. WHEN WHITE VAPOR ESCAPES FROM THE AIR BLEEDER VALVE, THIS INDICATES TANK IS FULL.
11. SHUT OFF TRANSFER PUMP, THEN THE BLEEDER VALVE.
12. CLOSE THE BULK FUEL AND FORK LIFT TANK VALVES.
13. DISCONNECT THE LPG TRANSFER LINE AND REPLACE HOSE ON BULK TANK.
14. CONNECT THE FORK LIFT FUEL LINE TO LPG TANK.
15. OPEN THE FORK LIFT FUEL TANK VALVE.
16. MAKE SURE ALL BULK FUEL VALVES, PUMPS ARE CLOSED AND THE REFUELING AREA IS LEFT IN A NEAT, CLEAN CONDITION.
17. DO NOT USE CRACKED, WORN OR FRAYED LPG HOSES. NOTIFY YOUR FOREMAN OR SUPERVISOR OF ANY UNSAFE CONDITION.

LPG IS A HIGHLY FLAMMABLE GAS. ANY SPARKS,  
OPEN FLAMES, ELECTRICAL MOTORS OR OTHER SPARK  
PRODUCING EQUIPMENT CAN IGNITE THIS GAS AND CAUSE  
AN EXPLOSION.

## EMPLOYEE BUSINESS EXPENSE CLAIM

For the period from

|    |    |     |
|----|----|-----|
| MO | DA | YII |
| 02 | 26 | 93  |

|    |    |    |
|----|----|----|
| MO | DA | YR |
| 01 | 22 | 89 |

VOUCHER NUMBER

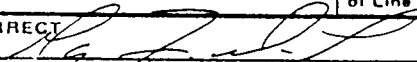
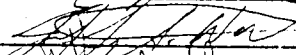

[illegible]

ACCOUNTING USE ONLY:

CUST/VEND ID#

REFERENCE # . . . . .

ENTERED BY . . . . .

|   |   |                               |              |
|---|---|-------------------------------|--------------|
| Line 1  | BALANCE ON HAND FROM LAST REPORT        |                               | —            |
| Line 2  | CASH PAYMENTS TO EMPLOYEE               |                               | —            |
| Line 3  | AMOUNT TO BE ACCOUNTED FOR (LINE 1 + 2) |                               | —            |
| Line 4  | SUBTRACT TOTAL PAID BY EMPLOYEE (J)     |                               | —            |
| Line 5  | DUE COMPANY (ATTACH CHECK)              | If Line 3 in Excess of Line 4 | —            |
| Line 6  | DUE EMPLOYEE                            | If Line 4 in Excess of Line 3 | 122          |
| CERTIFIED CORRECT<br>SIGNED BY:  |   |                               | Date 2/28/64 |
| APPROVED BY:                     |   |                               | Date         |
| APPROVED BY:                     |   |                               | Date 3/1/64  |

WESTATES CARBON, INC.  
GENERAL OPERATING ACCOUNT  
2130 LEO AVE.  
LOS ANGELES, CA 90040

MELLON BANK, N.A.  
THREE MELLON BANK CENTER  
PITTSBURGH, PA 15259  
60-180/433

007450

DATE  
03/04/93

CHECK NO.  
007450

ONE HUNDRED THIRTY-FOUR AND 40/100 Dollars

PAY  
TO THE  
ORDER OF

RAY DE LEON

AMOUNT  
\*\*\*\*\*\$134.40

AUTHORIZED SIGNATURE

⑈007450⑈ ⑆043301601⑆ 196⑈8961⑈

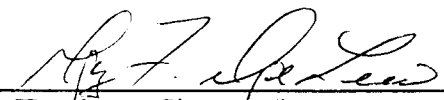
**Figure 2-3**  
**Employee Acknowledgement Form for Hazard Communication Training**

Westates Carbon - Arizona, Inc.  
Employee Acknowledgement of Hazardous Materials Training

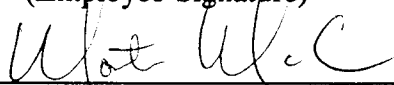
I Ray DeLeon hereby acknowledge that I have received training regarding the hazardous materials known or expected to be in the assigned workplace in accordance with OSHA regulations for a Hazard Communication Program contained in 29 CFR 1910. 1200.

The above training has included these subjects:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical
- The physical and health hazards of the chemicals in the work area
- The measures employees can take to protect themselves from these hazards
- The details of the Westates Hazard Communication Program, including an explanation of the labeling system, location of Material Safety Data Sheets, and how employees can obtain and use the appropriate hazard information.

Signed:   
(Employee Signature)

Date: 10/19/92

Received:   
(Director of Training)

Date: 10-19-92



# **WESTATES CARBON - ARIZONA** **EMPLOYEE JOB DESCRIPTION AND TRAINING RECORD**

Employee Name: \_\_\_\_\_

Job Title: \_\_\_\_\_ Hire Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

Job Title: \_\_\_\_\_ Promotion Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

Job Title: \_\_\_\_\_ Promotion Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

## **Other Training**

| Type      | Date  | Signature of Trainer | Type  | Date  | Signature of Trainer |
|-----------|-------|----------------------|-------|-------|----------------------|
| Forklift  | _____ | _____                | _____ | _____ | _____                |
| First Aid | _____ | _____                | _____ | _____ | _____                |
| CPR       | _____ | _____                | _____ | _____ | _____                |

**NOTE:** This form must be kept in the employee's personnel file for the duration of employment plus three years after the termination date. If terminated, authorized destruction date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

**TABLE 7-5  
JOB DESCRIPTIONS**

**Plant Manager** - The Plant Manager is responsible for overall management and production at the facility. He/she ensures the all waste handling operations are safely and correctly performed and that all regulatory requirements are met. He will ensure that the Contingency Plan is kept up to date and that employee training is performed in accordance with the approved training program. He will review all plant records, including the operating log and records of inspection and will ensure that this documentation is correctly performed and that records are maintained as specified by the permit and other applicable regulations.

**Director of Training** - The Director of Training is responsible for the administration of all operations and safety training programs. He/she will ensure that all company required operations training is performed and that training is properly documented. He will administer the HAZWOPER training and ensure that records are maintained in accordance with 29 CFR 1910.120, et. al. He will provide technical assistance to training instructors regarding personal protective equipment, industrial hygiene and related programs. For the foreseeable future, the Director of Training position will be filled by the Plant Manager.

**General Foreman** - The General Foreman directly supervises the carbon reactivation process, carbon handling operations, including warehousing, and other associated waste processing. He will instruct subordinate employees in the duties of their job and he will observe and evaluate their performance. He/she is directly responsible for the performance of operations in one or more specialty areas. He will inspect plant equipment and ensure that all plant systems, including alarm and emergency response systems are properly functioning.

**Maintenance Supervisor** - The Maintenance Supervisor is directly responsible for the operating condition of installed plant equipment and the physical condition of the entire facility. He will ensure that a schedule of routine maintenance is established and maintained, consistent with manufacturer's recommendations and good operating practices. He will ensure that adequate maintenance records are kept. He will training operating personnel, as necessary in the proper operation of installed equipment, to minimize downtime. He will respond to plant equipment breakdowns and other problems as required.

**Maintenance Technician (Journeyman)** - The journeyman will work under the direction of the Maintenance Supervisor to perform preventative and corrective maintenance. He will respond to plant breakdowns as required.

**Maintenance Technician (Apprentice)** - The apprentice will work under the direction of the maintenance journeymen in performing preventative maintenance and corrective maintenance on plant equipment. He will assist in maintaining the physical facility as required.

**Environmental Compliance Manager** - The Environmental Compliance Manager will work under the direction of the Corporate Environmental Health and Safety Director to ensure that all applicable environmental requirements are met. He/she will perform facility inspections and train other employees in the proper inspection of the facility. He/she will ensure that all environmental compliance records are properly maintained and that environmental reports are prepared for submittal in a timely fashion. He/she will assist the Plant Manager in responding to agency inquiries and will collect and record environmental data for the facility.

**Environmental Coordinator** - The Environmental Coordinator will handle customer waste profile applications and will coordinate and schedule delivery of spent carbon to the facility. He/she will maintain records for each customer regarding shipment and receipt of material. He/she will coordinate the shipment of reactivated carbon.

**Laboratory Technician** - The Laboratory Technician will perform routine waste screening analyses and will obtain samples and perform analyses related to process monitoring and environmental monitoring. He/she will assist in training other designated employees in obtaining samples. He/she will assist in reviewing waste profile applications and make recommendations as to whether wastes should be accepted. He/she will perform laboratory analyses on waste samples and process streams to determine plant operating parameters.

**Lead Operator** - The Lead Operator will be qualified to act as operator in charge of all equipment and processes on the work shift to which he is assigned. He/she will act under the direction of the General Foreman.

**Operating Technician** - The Operating Technician will operate plant treatment and waste handling equipment. He is responsible that his/her actions are properly performed and in accordance with established plant procedures and rules. He will inspect plant equipment and maintain documentation as directed by the Lead Operating Technician and the General Foreman.

**Secretary/Receptionist** - The Secretary/Receptionist will perform clerical functions as directed by the Plant Manager. He/she is directly responsible for the records under his/her care. The Secretary/receptionist will answer the phone and ensure that plant personnel are properly contacted regarding facility business. He/she will receive visitors and will ensure that the visitor log is maintained.

**FAXED**  
11-10-92

November 9, 1992

Ms. Elida Duarte  
Payroll Department  
WESTATES CARBON, INC.  
2130 Leo Avenue  
Los Angeles, CA 90040

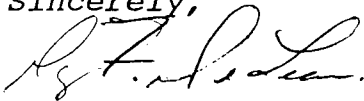
RE: Cancellation of Direct Deposit of Payroll Check

Dear Ms. Duarte:

This is to notify you that I wish to cancel the direct deposit of my weekly payroll check effective immediately.

Thank you for your attention to this matter.

Sincerely,



Ray De Leon  
WESTATES CARBON-ARIZONA, INC.

# CERTIFICATE OF TRAINING

*This is to certify that*

RAY F. DELBON

*has attended 40 hours of training  
in accordance with the OSHA Hazardous Waste  
Site Operators Training Curriculum (29 CFR 1910.120)*

facility WESTSTATE CARBON, INC, PARKER, ARIZONA

dated July 27-31,

19 92

  
Instructor

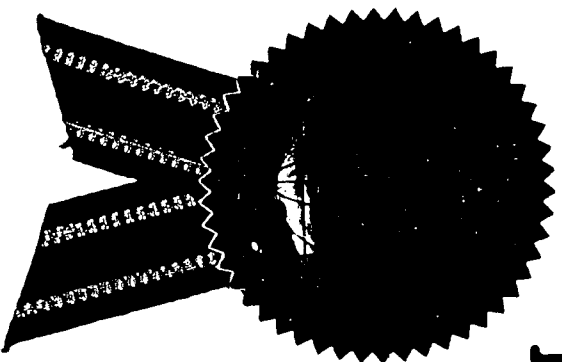
*Certificate of Completion*

Ray De Leon

*Has Hereby Satisfactorily Completed*

**“BOOT CAMP”**

*Basic Training Course*



Mr. Lee  
*Undersigned*

Sept. 3, 1992  
*Date*

**SECTION 7**  
**TRAINING PROGRAM**

## SECTION 7

### PERSONNEL TRAINING PROGRAM

This section presents an overall description of the personnel training program established for safe handling of hazardous wastes at the Westates Carbon facility. In accordance with 29 CFR 1910.120(p) the training program will include a minimum of 24 hours of classroom training for all employees whose job description requires them to handle hazardous wastes. Employees will not be assigned to positions which would require them to handle hazardous wastes until they have completed the initial training. Annual refresher training comprised of at least eight hours of classroom training will also be administered to all employees.

A training syllabus is included as Appendix A of this Health and Safety Program. The Appendix A is comprised of training modules which cover each topic addressed in the training program. Detailed operating procedures for the treatment processes are included in the Westates Carbon Procedures Manuals.

The entire training program including this section, the training syllabus, and supporting information are kept on file at the facility and are reviewed and updated as necessary to accommodate changes in procedures and regulations and to ensure compliance with the hazardous waste facility permit.

#### Outline of Training Program

The training program is composed of six training modules which are presented as part of both an introductory and a continuing training program. Classroom and on-the-job training are provided. A training cycle is established so that each required training topic is presented at least once annually.

**Overall Training Requirements.** Training requirements for each employee are dictated by the employee's position and specific duties. The following training topics are included in the program.

- I. Training for Personnel Safety
  - A. Chemistry of hazardous materials and wastes
  - B. Classification of hazardous materials and wastes
  - C. Chemical aspects of handling and disposal of hazardous waste
  - D. Acquisition and utilization of chemical waste

- II. Effects on Humans (Toxicology)
  - A. Introduction
  - B. Basic concepts of toxicology
  - C. Carcinogenicity, mutagenicity, teratogenicity
  - D. Health effect aspects of exposure to frequently encountered hazardous Materials and waste
  - E. Acquisition and utilization of additional toxicological and health effect information.
- III. Personal Safety - Section and Use of Personal Protective Clothing and Equipment
  - A. Introduction
  - B. Criteria for selection of protective equipment
  - C. Establishing a training program for supervisory personnel
  - D. Establishing a respiratory program
  - E. Recommended training program for employees who will be required to wear protective equipment
  - F. Standard safety procedures
- IV. Release Prevention and Response
  - A. Introduction
  - B. Regulatory aspects of contingency training
  - C. Planning for emergencies - preparation of an acceptance contingency plan
  - D. Emergency equipment
  - E. Duties of emergency coordinator
- V. Decontamination Procedures
- VI. Documentation



## VII. Facility Operation and Maintenance

- A. Introduction
- B. Waste acceptance procedures
- C. Other operation and controls
- D. Maintenance
- E. Equipment decontamination
- F. Specific operation procedures for processes

**Introductory Program.** A minimum of 24 hours of initial training is administered in a classroom environment and a Certificate of Completion is issued to each employee who has completed the classroom program. Additionally, on-the-job training is given to accomplish the following progressive goals.

1. *0-2 Weeks.* For this period, a new trainee will primarily observe the daily operations of the facility under the direct supervision of the Plant Manager and either the General Foreman, Maintenance Superintendent or the Environmental Compliance Manager (depending upon his duties). Under no circumstances is the trainee to handle or assist in handling any waste brought to the site until the 24 hours of initial classroom training has been completed. The new employee is expected to be aware of the hazardous waste to be handled, and to know the associated health effects and how to use all protective equipment. Also, the employee will be responsible for knowing his role in the Contingency Plan, and how to perform emergency decontamination procedures.
2. *2 Weeks - 2 Months.* During this period, the trainee will be basically "on his/her own", but under the control of his/her immediate supervisor. The trainee will assist in waste handling and treatment operations pertinent to his or her job description. He must be aware of those operations which could cause serious irreversible damage to human health or the environment. He will also be expected to assist with record keeping and documentation associated with his/her assigned tasks.
3. *After 2 Months.* By the end of the six-month training period, the trainee must know and be capable of performing all waste handling and treatment procedures pertinent to his job description. The trainee must be able to properly handle hazardous waste and perform his job with only routine supervision.

## **Continuing Program**

1. **Monthly Safety Meeting.** All facility employees, no matter which job they hold, will be required to attend a monthly safety meeting. At this meeting, supervisors and employees alike will acquaint themselves with safety and emergency procedures, equipment and equipment systems, including the following.
  - a. Procedures for using, inspecting, repairing, and replacing emergency equipment
  - b. Key controls for all systems
  - c. Communications or alarm systems
  - d. Proper responses to fires or explosions
  - e. Proper responses to incidents or contamination
  - f. Shutdown of operations
  - g. Accident prevention
  - h. Respiratory protection
  - i. Regulations and changes to regulations
2. **Annual Training Review.** All facility employees will take part in an annual training program to review basic Contingency Plan procedures and other facets of the program pertinent to their job descriptions. The annual review will incorporate a minimum of eight hours of classroom training. Topics will include a review of all initial training topics such as RCRA requirements for waste treatment, storage, and/or disposal, and emergency and contingency procedures. Any accidents or incidents during the past year will be reviewed, and any unsatisfactory conditions noted on inspection reports will be discussed. Employees will also be asked to provide comments and suggestions about the training program.

## **Training Environment**

Both classroom and on-the-job training are included in the introductory and continuing training programs. The introductory and continuing training required, as well as the extent of training needed in each module, is dependent upon the employee's specific job responsibilities. Employees will receive continuing training for all topics which were covered in the initial training program. The extent of training required for each job title is presented in Table 1.

## Director of Training

The Director of Training is responsible for the implementation of the training program. Because of his knowledge and on-the-job experience in hazardous waste, transfer, and treatment, the Plant Manager is designated as the Director of Training for the Westates Carbon facility. He/she is to be thoroughly familiar with all aspects of the training modules included in Appendix A as well as facility safety and emergency operations as detailed in the facility operation plan and the Westates Carbon Policies and Procedures Manual.

## Content of Training Program

The training program will consist of six training modules as outlined in part A.1.a of this section and as detailed in Appendix A. Proper implementation of the training modules will ensure that the following training is completed as required by 40 CFR 270 and 29 CFR 1910.120.

1. Training in hazardous waste management procedures, including contingency plan implementation, relevant to the employees' positions.
2. Training in, and competence to perform, field tests for identification and screening of hazardous wastes (i.e., Waste Analysis Plan (Operation Plan Section V.,C).
3. Training in emergency procedures, equipment, and systems including the following.
  - a. Procedures for using, inspecting, repairing, and replacing emergency equipment
  - b. Key parameters for control systems
  - c. Communications or alarm systems
  - d. Proper response to fires or explosions
  - e. Proper response to incidents or spills
  - f. Shutdown of operations
  - g. Accident prevention
  - h. Respiratory protection
  - i. Confined space procedures

## Specific Job Training

For each job title related to hazardous waste the type of training and extent of training is presented in Table 7-1. Both the type and extent of training required has been designed to meet actual job tasks, based on potential exposure to hazardous waste and complexity of job tasks. A summary of the training and education requirements for each position is presented in Table 7-2. A brief summary of the job description for each position is presented in Table 7-5.

| TABLE 7-1<br>Job Titles and Corresponding Training Requirements |   |            |                          |                                 |                            |  |                |
|---|---|------------|--------------------------|---------------------------------|----------------------------|--|----------------|
| Job Title   | Training Area/ Range of Topics Covered      |            |                          |                                 |                            |  |                |
|   | Chemistry of Hazardous Materials and Wastes | Toxicology | Selection and Use of PPE | Release Prevention and Response | Decontamination Procedures | Treatment Process Operations and Maintenance   | Record Keeping |
| Director of Training  | B   | B          | B                        | B                               | B                          | B  | B              |
| Plant Manager   | B   | B          | B                        | B                               | B                          | B  | B              |
| Environmental Compliance Manager                                | B   | B          | B                        | B                               | B                          | B  | B              |
| General Foreman   | B   | B          | B                        | B                               | B                          | B  | B              |
| Lead Operator   | B   | B          | B                        | B                               | B                          | B  | B              |
| Operating Technician  | B   | B          | B                        | B                               | B                          | B - To include broad training in specific training modules (Appendix A) for the treatment processes to which the operator may be assigned. | L              |
| Warehouse Technician  | B   | B          | B                        | B                               | B                          | L  | L              |
| Laboratory Technician   | B   | B          | B                        | B                               | L                          | L  | L              |
| Environmental Coordinator                                       |   | B          | B                        | B                               | B                          | L  | L              |
| Facility Maintenance Technician                                 | L   | L          | L                        | L                               | L                          | B  |                |
| Receptionist/Secretary  |   | L          |                          |                                 |                            |  | L              |

B = Broad Training L = Limited Training

| <b>Table 7-2</b><br><b>Job Titles and Corresponding Education &amp; Experience</b> |  |
|--|--|
| <b>Job Title</b>   | <b>Education and Experience</b>  |
| Plant Manager  | B.S. Chemical Engineering and 5 years Experience in Hazardous Waste/Materials Management and Plant Supervisory Experience. |
| Director of Training   | Same as Plant Manager  |
| General Foreman  | High School Graduate and Appropriate Experience  |
| Maintenance Supervisor   | High School Graduate and Appropriate Experience  |
| Environmental Compliance Manager   | B.A./B.S. in Chemistry, Chemical Engineering or other related science and Appropriate Experience                           |
| Lead Operator  | High School Graduate and Appropriate Experience  |
| Operating Technician   | High School Graduate   |
| Maintenance Technician/Journeyman  | High School Graduate and Appropriate Experience  |
| Maintenance Technician/Apprentice  | High School Graduate and Technical Aptitude  |
| Warehouse Technician   | Minimum High School Graduate   |
| Secretary/Receptionist   | Data Entry and Typing Experience   |
| Laboratory Technician  | Associate Degree in Chemistry and Appropriate Experience   |
| Environmental Coordinator  | Associate Degree in Business or Science and Appropriate Experience   |

### **Training Program Implementation**

The training program will be implemented as described in Part A.1. and A.4. of this section and will ensure the following.

1. Facility personnel complete the training program, or will complete, within six months after date of employment, or change of duties.
2. Facility personnel work in only supervised position, until they successfully complete training.
3. Facility personnel participate in annual review of training.

## **Training Record Description**

**Job Description.** The minimum required experience for each job title related to hazardous waste management is as follows (insert description as outlined in Table 1).

**Training Records.** Completion of training is documented by completion of training checklists using the format shown in Table 7-3 and a job and training description record using the format shown in Table 7-4.

## **Length of Time Training Records Are Kept**

Current personnel training records are retained at the facility until it closes. Records on former personnel are retained for three years from the date the employee last worked for Westates Carbon - Arizona, Inc.

## **Facility Employees**

Approximately fourteen employees may be present at the hazardous waste facility during the day shift. Fewer employees will be present at other times of the day and on weekends. Adequate staffing is provided to ensure that at least one person is present at all times who is knowledgeable in all facility operations. Normal staffing will consist of the following:

| <b>Job Title</b>                    | <b>Number of Employees</b> |
|-------------------------------------|----------------------------|
| Plant Manager                       | 1                          |
| General Foreman                     | 1                          |
| Maintenance Supervisor              | 1                          |
| Environmental Compliance Manager    | 1                          |
| Lead Operators                      | 4                          |
| Operating Technician                | 1                          |
| Warehouse Technician                | 4                          |
| Maintenance Technician (Journeyman) | 1                          |
| Maintenance Technician (Apprentice) | 1                          |
| Laboratory Technician               | 1                          |

| Job Title                 | Number of Employees |
|---------------------------|---------------------|
| Secretary/Receptionist    | 1                   |
| Environmental Coordinator | 1                   |
| Total: 18                 |                     |

**TABLE 7-3  
COMPLETION OF TRAINING CHECKLIST**

| <b>EMPLOYEE NAME:</b>          |                             |                     |                    |
|--------------------------------|-----------------------------|---------------------|--------------------|
| <b>EMPLOYEE POSITION:</b>      |                             |                     |                    |
| <b>DATE OF HIRE/PROMOTION:</b> |                             |                     |                    |
| DATE                           | Training<br>Module<br>Title | Initial<br>Training | Annual<br>Training |
|                                |                             |                     |                    |
|                                |                             |                     |                    |
|                                |                             |                     |                    |
|                                |                             |                     |                    |
|                                |                             |                     |                    |
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|                                |                             |                     |                    |
|                                |                             |                     |                    |
|                                |                             |                     |                    |
|                                |                             |                     |                    |

# **WESTATES CARBON - ARIZONA** **EMPLOYEE JOB DESCRIPTION AND TRAINING RECORD**

Employee Name: \_\_\_\_\_

Job Title: \_\_\_\_\_ Hire Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

Job Title: \_\_\_\_\_ Promotion Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

Job Title: \_\_\_\_\_ Promotion Date: \_\_\_\_\_

Initial Training Completed: \_\_\_\_\_ Dir. of Training Signature: \_\_\_\_\_

OJT Completed: \_\_\_\_\_ (Hire Date Plus 8 Weeks) Dir. of Training Signature: \_\_\_\_\_

## **Other Training**

| Type      | Date  | Signature of Trainer | Type  | Date  | Signature of Trainer |
|-----------|-------|----------------------|-------|-------|----------------------|
| Forklift  | _____ | _____                | _____ | _____ | _____                |
| First Aid | _____ | _____                | _____ | _____ | _____                |
| CPR       | _____ | _____                | _____ | _____ | _____                |

**NOTE:** This form must be kept in the employee's personnel file for the duration of employment plus three years after the termination date.  
 If terminated, authorized destruction date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_



**TABLE 7-5  
JOB DESCRIPTIONS**

**Plant Manager** - The Plant Manager is responsible for overall management and production at the facility. He/she ensures the all waste handling operations are safely and correctly performed and that all regulatory requirements are met. He will ensure that the Contingency Plan is kept up to date and that employee training is performed in accordance with the approved training program. He will review all plant records, including the operating log and records of inspection and will ensure that this documentation is correctly performed and that records are maintained as specified by the permit and other applicable regulations.

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**General Foreman** - The General Foreman directly supervises the carbon reactivation process, carbon handling operations, including warehousing, and other associated waste processing. He will instruct subordinate employees in the duties of their job and he will observe and evaluate their performance. He/she is directly responsible for the performance of operations in one or more specialty areas. He will inspect plant equipment and ensure that all plant systems, including alarm and emergency response systems are properly functioning.

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**Maintenance Technician (Apprentice)** - The apprentice will work under the direction of the maintenance journeymen in performing preventative maintenance and corrective maintenance on plant equipment. He will assist in maintaining the physical facility as required.

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**Operating Technician** - The Operating Technician will operate plant treatment and waste handling equipment. He is responsible that his/her actions are properly performed and in accordance with established plant procedures and rules. He will inspect plant equipment and maintain documentation as directed by the Lead Operating Technician and the General Foreman.

**Secretary/Receptionist** - The Secretary/Receptionist will perform clerical functions as directed by the Plant Manager. He/she is directly responsible for the records under his/her care. The Secretary/receptionist will answer the phone and ensure that plant personnel are properly contacted regarding facility business. He/she will receive visitors and will ensure that the visitor log is maintained.

**APPENDIX A**  
**TRAINING FOR PERSONNEL SAFETY**

## TRAINING FOR PERSONNEL SAFETY

### MODULE 1 - CHEMISTRY OF HAZARDOUS MATERIALS AND WASTES

#### I. BROAD TRAINING

##### A. Intent

The intent of the chemistry presentation is to provide a sufficient amount of hazardous materials and waste chemistry and "hands-on" experience and enable the Westates trainee to do the following.

1. Recognize potential chemical hazards.
2. Comprehend the chemical aspects of the materials presented in subsequent sections, especially toxicology and health effects; personal safety and the selection and use of protective clothing and equipment; operational aspects of handling, storage, treatment, and disposal of hazardous wastes; contingency plan training, and labeling, placarding and recording.
3. Obtain and utilize additional information from available chemical data resources.

##### B. Content

The broad training chemistry module will contain the following program elements.

1. Basic concepts of the chemistry to hazardous materials and wastes.
2. Classification of hazardous materials based on the correlation of hazard to physical and chemical properties.
3. Chemical aspects of handling, storage, treatment and disposal of hazardous wastes.
4. Acquisition and utilization of chemical data.

### C. Program Elements

1. Basic Concepts of the Chemistry of Hazardous Materials and Wastes. A material is typically referred to as hazardous if it is toxic and/or reactive. Consequently, hazardous materials are those which have the following properties.

- Contain materials which are toxic.
- Contain materials which can react under various environmental conditions to yield large amounts of energy (e.g, heat and/or light) in a relatively short time.
- Contain materials which can react under various environmental conditions to yield materials which are toxic.

There is a distinction between a hazardous material and exposure to the material. Also exposure is necessarily related to two additional concepts. They are contact and dose or the level of the material to which humans and/or the environment are exposed.

The section on toxicology and health effects will be specifically devoted to materials which are toxic. Consequently, apart from a presentation of the more general chemical aspects of toxic materials, the section on chemistry should be devoted to reactive materials.

2. Basic concepts of chemical reactions pertinent to hazardous materials and wastes will be presented including the following.
  - a. Thermodynamic aspects of chemical reactions (endothermic, and exothermic reactions).
  - b. The concept of reaction rate.
  - c. Factors which affect reaction rates such as the following.
    - Nature of the material
    - Physical state
    - Surface area
    - Concentrations of the reactants
    - Activation energy
    - Temperature
    - Catalysts
3. The concept of chemical equilibrium.

#### 4. Classification of Hazardous Materials and Wastes

##### a. Toxic Materials and Wastes

While the major component of information transfer for toxic materials and wastes will be provided in the section on toxicology are health effects, it is important that the trainee receive a limited amount of instruction in the chemical aspects of toxic substances. Consequently, the broad training chemistry module will include training on the chemical properties of the following classes of toxic substances.

- Heavy metals
- Organic solvents
- Toxic gases

##### b. Corrosive Materials and Wastes

Westates trainees will be taught the following general concepts which define the class of corrosive materials and wastes.

- Definition of corrosive under RCRA
- pH, acidity, alkalinity
- Measurement of pH, acidity, alkalinity, corrosion
- Acid and base strength
- Neutralization
- Buffer systems

##### c. Reactive Materials and Wastes

Westates trainees will be taught the following general concepts defining the class of reactive materials and wastes.

- Concepts of oxidation and reduction;
- Common oxidizing and reducing agents; and
- General properties of oxidizing and reducing agents

## 6. Classification Systems

Several methods of classification for both hazardous materials and hazardous wastes have been devised. At a minimum the trainee will be given information concerning the following "systems".

- a. RCRA hazardous waste classification (3001).
- b. United Nations (UN) and Department of Transportation (DOT) hazardous materials classifications (see Table 1).

| Table 1   |   |
|---|---|
| D.O.T. Materials Labeling and UN Hazard Numbers |   |
| <u>UN Hazard Class No.</u>                      | <u>DOT Description</u>  |
| 1   | Class A, B and C explosives   |
| 2   | Nonflammable and Flammable compressed gases   |
| 3   | Flammable liquids   |
| 4   | Flammable solids, spontaneously combustible substances, and water reactive substances   |
| 5   | Oxidizing materials, including organic peroxides  |
| 6   | Class A and B poisons, irritants, and etiologic (disease causing materials)             |
| 7   | Radioactive materials   |
| 8   | Corrosive materials (acids, alkaline liquids, and certain corrosive liquids and solids) |
| 9   | Miscellaneous hazardous materials not covered by any of the other classes               |

c. National Fire Protection Association (NFPA) 704M System.

The NFPA has developed a system also known as the 704M System, which is presented in their Fire Protection Guide on Hazardous Materials. This system identifies Hazardous materials by a color-coded numeric system showing, on a diamond-shaped diagram with four section, the degree of hazard with respect to health, flammability and chemical reactivity. Degree of hazard is represented by numbers which range from 0 (no hazard) to 4 (maximum hazard). The colors red, blue and yellow are used for fire hazard rating, health hazard rating, and chemical reactivity hazard rating, respectively. Three additional systems can be used in the lower quadrant: a radiation hazard symbol, W, denoting that water should not be used in fire-fighting, and OXY to denote an oxidant.

7. Chemical Aspects of Handling, Storage, Treatment, and Disposal of Hazardous Waste

The intent of this portion of the broad training chemistry module will be the provision of a chemical foundation for subsequent material to be presented in the facility operation and maintenance module. Topics which would be covered include the following.

- a. Development and utilization of chemical waste data sheets
- b. Chemical aspects of personal safety
- c. Concept of chemical incompatibility
- d. Environmental monitoring - sample collection, labeling, preservation, and analysis procedures.

8. Acquisition and Utilization of Chemical Data

Westates trainees will be made aware of existing sources of chemical data and will be instructed in procedures for obtaining and using these data. Available data resources include both hard copy reference sources and computer retrieval systems. Specific sources of information are as follows.

- a. Material Safety Data Sheets for Significant Waste Components
- b. Chemical Transportation Emergency Center (CHEMTREC)
- c. EPA Oil and Hazardous Materials Technical Assistance Data System (OHM-TADS)
- d. National Library of Medicine Databases CHEMLINES (Chemical Dictionary)

- e. Bibliographic and Retrieval Services Databases
- f. Chemical Manufacturer's Data Sheets

## **II. Limited Training**

### **A. Intent**

Personnel requiring limited training in chemistry will receive a program of instruction combined with on-the-job training enabling them to the following.

1. Recognize potential chemical hazards
2. Report chemical hazards to the proper onsite personnel
3. Understand chemical aspects of their specific job including handling of hazardous waste, use of safe procedures, etc.

### **B. Content**

It is recognized that an attempt to present too much information or training which is unnecessarily advanced will not aid the employee and may in fact reduce the employee's ability to perform. Types of information appropriate to limited training include the following.

1. Essential elements of behavior of flammable materials
  - a. Temperature
  - b. Vapor Density
  - c. Types and availability of ignition sources
2. Essential elements of behavior of flammable materials precautions
3. Recognition of flammable, corrosive, and reactive materials



## MODULE 2 - EFFECTS ON HUMANS (TOXICOLOGY)

### I. BROAD TRAINING

#### A. Intent

The intent of the broad toxicology module is the provision of an overview in toxicology and health effects which will enable the trainee to do the following.

1. Recognize potential health hazards to onsite personnel
2. Comprehend the toxicological and health effects of the materials presented in subsequent modules
3. Understand and appreciate some well-known effects of exposure to hazardous materials and the corresponding need for preventive measures and protective clothing and equipment
4. Understand the natural protective measures of the body
5. Develop an awareness of potential long-range adverse effects (e.g.; cancer, birth defects, and damage to successive generations)
6. Utilize the information of this module together with that imparted in other modules and obtained from additional information sources to take steps to minimize potential health hazards resulting from hazardous waste management operations at the facility
7. Obtain and utilize additional toxicological and health effects information

#### B. Content

The board training toxicology and health effects training module will contain the following program elements.

1. Basic concepts of toxicology
2. Carcinogenicity, mutagenicity, teratogenicity
3. Toxicity testing
4. Health effect aspects of exposure to frequently encountered hazardous materials and wastes
5. Acquisition and utilization of additional toxicological and health effect information

## C. Program Elements

### 1. Basic Concepts of Toxicology

- a. Definition of health hazard
- b. Principles of risk assessments
- c. Dose-response concepts
- d. Use of  $ED_{50}$  and  $LD_{50}$
- e. Examples of  $LD_{50}$ 's of common compounds
- f. Effects of exposure period - slow and fast poisons
  - Delayed toxicity
  - Acute, subchronic, and chronic toxicity

### 2. Carcinogenicity, Mutagenicity, Teratogenicity

- a. Basic definitions
- b. Correlation of carcinogenicity to mutagenicity
- c. Examples of known human carcinogens, teratogen
- d. Elementary aspects of mechanisms of carcinogenicity, mutagenicity, teratogenicity

### 3. Health Effect Aspects of Exposure to Frequently Encountered Hazardous Materials and Wastes

This section provides a presentation of basic material to the trainee on the impact of exposure to a variety of common hazardous materials and wastes. Emphasis is placed on the symptoms, effects and applicable therapeutic measures to those selected materials and wastes. The intent of this section is to impress upon the trainee the impact of hazardous exposure to these materials so that this respect or concern can be communicated to other onsite personnel and to provide information which aids in health effects recognition and hazard mitigation. The list of materials discussed includes the following.

a. H<sub>2</sub>S toxic vapors

b. Heavy metals

- |            |            |            |
|------------|------------|------------|
| • Cadmium  | • Vanadium | • Lead     |
| • Zinc     | • Copper   | • Titanium |
| • Chromium | • Mercury  | • Nickel   |

c. Chlorinated hydrocarbon solvents.

4. Acquisition and Utilization of Additional Toxicological and Health Effects Information.

Westates trainees are made aware of existing resources on toxicology and health effects including the following.

a. National Library of Medicine Databases

- TOXLINE
- TOXBACK

b. Bibliographical Retrieval Services Databases

- BIOSIS
- MEDOC

## II. Limited Training

### A. Intent

As with the limited chemistry training module, it is important that the material selected for incorporation into a limited toxicology and health effects training module not be unnecessarily complex and inclusive. The intent of the limited toxicology and health effects training module will be to provide sufficient knowledge and experience to enable the Westates trainees to do the following.

1. Recognize potential health hazards
2. Report potential health hazards to the proper onsite personnel
3. Comprehend the health effects related to his or her specific position with respect to training in operational procedures, personal safety and selection and use of personal protective clothing and equipment, and contingency plan training

## B. Content

Site specific factors will dictate the final choice of material to be incorporated into the limited toxicology and health effects training module. Topics appropriate for incorporation include the following.

1. Types of exposure to commonly-handled hazardous wastes - need for protection
2. Health related aspects of safe job procedures
3. Potential impacts of commonly-handled hazardous wastes on human health
4. Need to be alert to odors, emissions, leaks, etc., and to report these to the proper onsite authority

## MODULE 3 - SELECTION AND USE OF PERSONAL AND PROTECTIVE CLOTHING AND EQUIPMENT

### I. Broad Training

#### A. Intent

The purpose of this module is to set forth a training program for both managers and employees. The guidelines provided are appropriate to a limited program and should be expanded by the managers to include pertinent site specific items and specific job tasks.

#### B. Content

The general program elements discussed are:

1. A method to establish criteria for the selection of protective equipment;
2. Establishing a training program for supervisory personnel;
3. Establishing a Respiratory Protection program;
4. A recommended training program for employees who will be required to wear protective equipment; and
5. Standard safety precautions to be observed.

#### C. Establishing a Training Program for Supervisory Personnel

Supervisors who are required to both use and to supervise workers using protective equipment will undergo a comprehensive training program. At a minimum, the program for site managers and supervisory personnel will include:

##### 1. Protective clothing

- a. Types of protective clothing and uses.

A two-piece suit or one-piece coverall of a rubberized or vinyl fabric will provide adequate protection for normal exposures to corrosive and toxic materials.

Other items required include protection for the face (goggles, shield, hood), gloves, and foot protection (boots, overshoes, shoe covers). The various manufacturers have developed lists of what their product can protect against.

- b. Inspection procedures to determine serviceability prior to using, and periodic inspections thereafter.

- c. How to put on the clothing to insure maximum protection.
  - d. How to remove the clothing to preclude personal contamination.
  - e. How to decontaminate and maintain the clothing.
  - f. Limitations for each type of clothing used at the facility.
2. Respiratory protective devices and uses
- a. Types of respiratory protective devices used in the following environments.
    - (1) Oxygen deficient environments. For atmospheres containing 19.5 percent or less of oxygen by volume ANSI Z88.2-1969 requires the use of a Self-Contained Breathing Apparatus (SCBA), or a Type A hose mask with blower, or a combination air line respirator with an auxiliary self-contained air supply.
    - (2) Immediately dangerous to life or health (IDLH). For atmospheres that pose an immediate or delayed threat to life or health. Protection may be divided into two categories: gas and vapor contaminants and particulate contaminants. A SCBA, type A hose mask with blower, gas mask (for escape only), a rescue mouthpiece respirator with an auxiliary self contained air supply is used to protect against both categories of contaminants.
    - (3) Not immediately dangerous to life or health (NIDLH). For atmospheres not severe enough to warrant a classification of IDLH; but do present a health hazard and require the use of respiratory protective devices. Protection is divided into the same categories as the IDLH:
      - Gas and vapor contaminants - An air line respirator, hose mask with blowers, or air-purifying, hose mask with blower, or air-purifying, half-mask or mouthpiece respirator with chemical cartridge is used.
      - Particulate contaminants - An air line respirator, hose mask without blower, air line abrasive blasting respirator, or air-purifying, half mask or mouthpiece respirator with filter pad or cartridge is used.
      - Gas, vapor and particulate contaminants - An air line respirator, hose mask without blower, or air-purifying, half-mask or mouthpiece respirator with chemical cartridge and appropriate filter is used.
    - (4) The above categories are in compliance with ANSI Z88.2-1969. This

standard could be changed in the future to reflect state-of the-art developments in breathing devices. When the new ANSI Z88.2 is published, changes in the devices listed in all of the categories above will have to be made.

b. Inspection procedures to determine serviceability prior to using.

- (1) How to properly fit the facepiece
- (2) How to leak-test the respiratory protective device
- (3) How to recognize the end of service life
- (4) How to decontaminate, disinfect, and maintain the device
- (5) Limitations for each type of device used at the facility

3. Establishing a Respiratory Protective Program.

The employer who requires his employees to wear respiratory protective devices is required to do several things. The Westates Environmental Manager has established a Respiratory Protection Program. Important items included are:

- a. Obtain only National Institute for Occupational Safety and Health (NIOSH) approved devices. These are items that have been tested and approved in accordance in the 30 CFR Part 11.
- b. The Environmental Manager at the facility has established respiratory Protection Program in accordance with 29 CFR Part 1910.134 (b). The requirements for a minimally acceptable program are as follows.
  - (1) Written standard operating procedures covering the selection and use or respirators
  - (2) Selection based upon hazardous material to which the worker will be exposed to
  - (3) These users must be instructed and trained in the proper use of respirators and their limitations
  - (4) Respirators should be permanently assigned to workers for their exclusive use
  - (5) Respirators should be cleaned and disinfected on a regular basis
  - (6) Respirators shall be stored in a convenient, clean and sanitary location

- (7) Respirators used routinely shall be inspected and repaired, if necessary, during cleaning. Emergency use equipment shall be inspected monthly and after each use
- (8) Surveillance of the work area conditions shall be accomplished as necessary and an evaluation of the employee exposure and stress shall be maintained
- (9) Regular inspection and evaluation procedures shall be implemented to insure the continued effectiveness of the program
- (10) A medical evaluation of employees is mandatory prior to their using protective equipment to insure that they are physically capable of performing the work while wearing protective equipment. A periodic medical review will also be established
- (11) Only approved or accepted respiratory protective devices shall be used

D. Recommended Training Program For Employees Who Will Be Required To Wear Protective Equipment

1. Respirators

Title 29 CFR Part 1910.134 (b) (3) places the responsibility for proper training on the use of respirators directly on the employer. Westates employees are instructed on the proper use and maintenance of the respiratory protective devices.

a. Minimum Training

- (1) Instruction in the nature of the hazard and information as to what may happen if the respirator is not used
- (2) Explanations of why engineering or process oriented controls are not feasible to reduce or eliminate the need for the respirators
- (3) Explanations of why this is the proper respirator for the particular purpose
- (4) Classroom and field training to recognize and cope with emergency situations
  - (a) Training to include recognition of the end of the service life of the cartridge, canister or filter
  - (b) Periodic refresher training in actual use of the respirator



b. Fitting

In addition to the above training program, each employee is instructed in the proper method of fitting the respirator as follows.

- (1) Fitting instructions vary from respirator to respirator. The only correct method is to follow the manufacturer's instructions that are provided with the respirator.
- (2) Each time the wearer puts a respirator on, a positive and negative pressure test should be conducted to insure a proper fit.
  - Positive pressure test. Close the exhalation valve and exhale gently into the facepiece. A slight positive pressure should build up inside the facepiece without any outward leakage of air at the seal.
  - Negative pressure test. Close the inhalation valve(s) and inhale gently. The facepiece should collapse against the face. Hold the breath for 10 seconds. If the facepiece remains collapsed against the face and no inward leakage of air occurs, the fit of the respirator is satisfactory.

c. Testing

Each time a new respirator is issued, the wearer should wear the respirator in a test environment to demonstrate the effectiveness of the respirator. Either a qualitative test using isoamyl acetate vapors or an irritant smoke or a quantitative test using sodium chloride or diocetyl phthalate (DOP) is acceptable. Either method is acceptable; however, the qualitative test actually establishes a protection factor for that individual respirator. This method is useful in that it is an objective measurement rather than a subjective decision of the wearer.

2. Protective Clothing

The use of protective clothing also requires training. The following subjects will be included in the training program.

- (a) Why the particular type of clothing was chosen and what protection it will offer
- (b) The proper method of wearing the clothing so that maximum protection will be afforded
- (c) The proper method of undressing so that the possibility of personal contamination can be precluded

- (d) The proper method of decontamination and maintenance of the clothing
- (e) Manufacturer instructions normally included with the clothings - instructions will vary from brand to brand

#### E. Standard Safety Precautions

A good safety sense should be second nature to employees who handle hazardous materials and wastes. The major areas continuously emphasized are as follows.

1. Glasses with temple pieces cannot be worn with a full facepiece respiratory protective device. A good seal is impossible to achieve.
2. Contact lenses cannot be worn with respirators. They are forbidden by OSHA.
3. Any facial hair that could preclude a good face-to-mask seal shall not be allowed. This includes beards, sideburns and long mustaches that extend outward.
4. Personnel with facial features that might preclude a good face-to-mask seal should not be assigned duties that would require their wearing a respirator. These features include sunken temples or cheeks, an abnormally large nose, or a malformed face.
5. Personnel with respiratory problems will not be assigned duties requiring a respirator.
6. Personnel will be screened for claustrophobic tendencies when they are wearing protective equipment.
7. Personnel will be advised of the heat build-up while wearing protective equipment. They should be made aware of the symptoms of the heat exhaustion, heat stroke, heart attack, and pulmonary collapse. They should receive training in first aid for each of these.
8. Personnel will be trained in the use of life lines and the "buddy" system for use in confined spaces and "Immediately Dangerous to Life or Health" environments.
9. Periodic training will be conducted which requires the employee to properly use the available protective equipment.
10. Personnel performing duties requiring the use of protective equipment should be entered in a medical surveillance program and will receive a periodic physical check-up.

## MODULE 4 - RELEASE PREVENTION AND RESPONSE

### I. BROAD TRAINING

#### A. Intent

Regulations developed in accordance with RCRA Section 3004 specifically state that, at a minimum, "the training program must be designed to insure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems...." (Personnel Training Section 264.16 (a) (3)). Regulations have also been promulgated concerning required on-hand emergency equipment, and special handling procedures for ignitable and reactive wastes. Regulations concerning the content of acceptable contingency emergency procedures are found in Subpart D-Contingency Plan and Emergency Procedures (Section 264.50-Section 264.556). A contingency plan must be prepared for each facility and made available to the proper authorities identified in the regulations. Facility personnel will be trained in accordance with their role in the contingency plan.

#### B. Content

All management level personnel will receive a comprehensive contingency plan training package designed to provide the following program elements.

1. Provide general information concerning development and execution of acceptable contingency plans; selection, deployment, and operation of emergency plan and communication equipment, and design and administration of acceptable site-specific contingency plan training programs.
2. Provide general information concerning types of emergency equipment and communication devices required in accordance with the regulations.
3. Provide a description of the duties of the Emergency Coordinator.
4. Provide instruction on the regulatory aspects of contingency plan training
5. Personnel will be thoroughly trained in the types, location, and usage of the various fire-extinguishing methods, equipment and plans available at the site.
6. It should be continually emphasized throughout the training cycle that "Smoking Areas" have been designated and smoking is allowed only in those areas.
7. Employees will be trained concerning the methods used at the site to control matches, lighters, and other ignition sources.

a. Material Handling

Site personnel will be made familiar with the provisions of Chapter 29 of the Code of Federal Regulation subpart N, Paragraphs 1910.176-1910.190 dealing with material handling and storage. These paragraphs cover all aspects of material handling and storage. Only those portions applicable to the site need to be taught.

b. Tank Hazards

A training program is established which insures the trainees fully comprehend the safety measures in and around tanks. These safety measures must be implemented prior to start up or after any contamination or spill:

- (1) The vessel should be thoroughly ventilated.
- (2) Connecting pipelines should be disconnected.

C. Program Elements

1. Planning for emergencies - preparation of an acceptable Contingency Plan

Planning is a vital function entrusted to management. This is where potential problem areas are identified and corrected. Areas addressed in the initial development stages of the site include the following.

- a. Good road network that allows for rapid evacuation of personnel and equipment and provides rapid access and deployment of emergency response vehicles and personnel
- b. Special handling procedures and areas for incompatible and/or reactive wastes
- c. A Contingency Plan which prevents or minimizes human health and environmental damage in the event of an accident. Specific areas addressed in the Contingency Plan include the following.
  - (1) Methods of implementing the plan;
  - (2) Coordination and liaison with local police and fire departments, hospitals, and state and local emergency response teams. This includes visits to the site by these agencies and briefings presented to them by site personnel covering site layout, materials handled, working areas, road network, and designated evacuation routes
  - (3) Designation of the Facility Emergency Coordinator

- (4) A listing of all emergency equipment at the site, its location, a description of it, and its capabilities
- (5) An evacuation plan which outlines evacuation routes, both primary routes and alternate routes, and the signal to be use to begin evacuation
- (6) The development of a training program for the familiarization of employees with emergency procedures, emergency equipment and emergency systems
- (7) Distribution of the Contingency Plan - the facility, the Regional Administrator, all pre-arranged emergency response groups.

### 3. Emergency Equipment

#### a. Emergency Communication Equipment

One of the most important items of emergency equipment is communications equipment. This may be radio, telephone, or an audible alarm (e.g., siren, klaxon, etc.). Areas of training include the following.

- (1) Types of equipment available at the site and how to use them
- (2) Location of equipment
- (3) Emergency telephone numbers to be used to outside agencies and sources of assistance
- (4) If the facility shuts down, the Emergency Coordinator must maintain surveillance in other areas, etc.

b. After the emergency is over, the Emergency Coordinator will provide the clean-up, the treatment and disposal of affected materials and insure no hazardous waste is discharged.

c. Prior to resuming operations, the Emergency Coordinator will submit all required reports to the appropriate authorities within the specified time.

### 2. Regulatory Aspects of Contingency Plan Training. Instruction will be provided on the following specific regulations;

- a. RCRA, Subpart C - Preparedness and Prevention; and
- b. RCRA, Subpart D - Contingency Plan Emergency Procedures

## II. Limited Training

Each employee will be trained in his or her specific role per the facility Contingency Plan. In addition, training will be provided in the following areas.

A. First Aid - All facility personnel will complete a program of instruction in first aid; any of the readily available programs offered by the Red Cross, YMCA, or other competent organizations are satisfactory.

### B. Duties of the Facility Emergency Coordinator

The facility Emergency Coordinator is a person designated in the Contingency Plan as being the person responsible for coordinating all emergency response measures at the facility. These include the following.

1. The Emergency Coordinator has familiarity with the site, its layout, operations, and Contingency Plan.
2. The Emergency Coordinator has the authority to commit resources.
3. The Emergency Coordinator activates internal alarms to alert facility personnel of an actual or impending emergency.
4. The Emergency Coordinator notifies external emergency response forces when their assistance is required.
5. The Emergency Coordinator provides immediate information for discharged materials and assessment of the possible hazards to human health and the environment outside the facility and transmittal of the assessment to the appropriate authorities.
6. The Emergency Coordinator will take all reasonable measures to insure that the affected area does not spread to other areas.

C. Personnel will be instructed in the locations of first aid stations, showers, communication systems, and fire-fighting equipment and instructed in the operation of equipment as necessary.

D. Personnel will be instructed in evacuation procedures and incident reporting mechanisms to be followed in the case for an emergency. Finally, all facility personnel will engage in simulated training for those potential emergencies having the highest probability at the Westates facility. This will give management valuable feedback on the effectiveness of the training and any need for remedial training.

1. Shaving. Persons who are required to wear respiratory protection, either on a routine or emergency basis, will be clean shaven.

2. Long Hair. Long hair will be pulled back from the face.
3. Glasses. Normal glasses cannot be worn with a full facepiece respiratory protective device. The temple pieces would preclude a good seal of the respirator. Employees who require corrective lenses will be provided with spectacles that can be mounted inside the facepiece. Most respiratory protective device manufacturers have spectacle mounting kits for their facepieces.
4. Contact Lenses. The wearing of contact lenses in contaminated atmospheres with a respirator will not be allowed. This applies to both "hard" and "soft" lenses.
5. Clothing. It will be emphasized during training sessions that street clothing cannot be worn in the operational areas. Personnel will be taught that they must change from street clothing to work clothing prior to going to an operational area. Once they leave the operational areas, they will go through a decontamination process which culminates in their street clothing. This will preclude the possibility of contamination leaving the site on work clothing.
6. Washing. Personnel will be taught that for their own safety, directives pertaining to eating and smoking areas must be adhered to. At a minimum, personnel will be taught to thoroughly wash with soap and water before eating, drinking or smoking. Personnel will follow the same procedures before going to the toilet facilities. This precludes genitalia contamination.
7. Illness. Personnel should be instructed always to inform their supervisor of any illness that could either interfere with their job performance or could mask symptoms caused by materials in the facility. Of vital importance are respiratory illnesses and skin disorders since these could interfere or preclude wearing of protective equipment.
8. Luncheon Procedure. Employees will be taught that there is a specially designated area for eating. Under no circumstances will employees be allowed to eat or smoke in any operational areas. Prior to eating or smoking, personnel will go through decontamination procedures. At a minimum, this will include a thorough cleaning of the hands with soap and water. Eating and smoking areas will be kept clean and free of all contaminating substances. Eating tables will not be used as beds.

## MODULE 5 - DECONTAMINATION PROCEDURES

### I. BROAD AND LIMITED TRAINING

#### 1. Intent

To insure personnel safety, all employees will be instructed as to proper decontamination procedures when dealing with hazardous wastes.

#### 2. Content

Decontamination training will include the following program elements.

- a. Personal Hygiene
- b. Laundering Procedure
- c. Personnel Decontamination Procedure
- d. Spill Clean-up Procedure

#### 3. Program Elements

##### a. Personal Hygiene

It is of vital importance that the necessity of good personal hygiene be stressed to all employees of hazardous waste management facilities. Personal hygiene is a key factor in reducing the incidence of personal injury caused by contamination for hazardous materials.

##### b. Laundering Procedure

A laundry service will be available to decontaminate and launder work clothing that has been worn.

##### c. Personnel Decontamination Procedure

Prior to leaving the site, personnel will go through a decontamination procedure. This is an element that will be emphasized throughout the training program. The change room will be capable of providing the necessary function of decontamination. The following areas will be provided.

- (1) Dressing Area: The location where personnel change from street clothing to work clothing.



- (2) Protective Clothing Storage and Issue Area: the location where all clean work clothing are stored and issued from.

d. Spill Cleanup Procedures

Personnel will be thoroughly trained on all aspects of the Contingency Plan and will be allowed to practice their specific areas of responsibility. Personnel roles will continuously be reemphasized until their reaction to a spill becomes a reflex action.

## MODULE 6 - FACILITY OPERATION AND MAINTENANCE

### I. BROAD TRAINING (NO LIMITED TRAINING APPLIES)

#### A. Intent

This section presents information concerning facility operational and maintenance aspects which is pertinent for inclusion into a complete safety training program for Westates Corporation.

#### B. Content

The following elements will be taught as a part of facility operation and training maintenance.

##### 1. Program Elements

a. Process Description. Training will be provided concerning the following.

- (1) Individual processes
- (2) Interrelated processes
- (3) Overall facility process capabilities

b. Waste Acceptance Procedures. Items to be evaluated include the following.

- (1) Review of waste manifest
- (2) Weighing, measuring and sampling
- (3) Analysis and quality control
- (4) Initiation and use of waste data sheets
- (5) Unloading at process area

c. Process Operation and Controls. Items to be evaluated include the following.

- (1) Normal operation
- (2) Controls
- (3) Normal shutdown

- (4) Emergency shutdown
  - (5) Alternate operation
  - (6) Emergency operation
  - (7) Description for controls
  - (8) Reference to schematic diagrams and manufacturer's manuals
  - (9) Operating problems and solutions
    - (a) Description
    - (b) Problem
    - (c) Indicators
    - (d) Inspection
    - (e) Corrective Measure
  - (10) Laboratory process controls
    - (a) Sampling
    - (b) Flow controls/level controls/pH controls
    - (c) Analysis
    - (d) Monitoring
    - (e) Documentation
- d. Maintenance. For all equipment, the following elements will be considered.
- (1) Schedules
  - (2) Manufacturers' recommendations
  - (3) Special tools and equipment
  - (4) Housekeeping schedule
  - (5) Spill cleanup procedures
  - (6) Lubrication

- (7) Removing equipment from service
  - (8) Care of structures
  - (9) Driving equipment
  - (10) Variable-speed drives
  - (11) Pumps
  - (12) Valve and valve repairs
  - (13) Monitoring equipment
  - (14) Repair of contaminated equipment
  - (15) Equipment decontamination
- e. Equipment Safety. The following elements should be incorporated (which address OSHA training requirements as well).
- (1) Explosion and Fire Hazards. Explosive materials (Class A, B, or C) are not accepted at the Westates facility. A thorough training program will be implemented to preclude any possibility of an explosive mixture being generated within the operational area.

The program should include the following.

- (a) An evaluation of materials that may be accepted at the facility which could generate explosive mixtures under some conditions
- (b) Development of procedures under the direction of the Environmental Compliance Manager for treatment and storage to preclude the possible formation of explosive mixtures
- (c) Classification of Fires.
  - i) Class A fires are fires in ordinary combustible materials such as wood, cloths, or paper
  - ii) Class B fires are defined as fires in flammable petroleum products or other flammable liquids or greases
  - iii) Class C fires are fires involving energized electrical equipment where the electrical nonconductivity of the extinguishing agent is of importance

- iv) Class D fires are fires in combustible metals such as potassium, sodium, and magnesium
  - (d) Training of personnel in the types, location, and usage for the various fire-extinguishing methods, and equipment available at the site
  - (e) Emphasis throughout the training cycle that "Smoking Areas" have been designated and smoking is allowed only in those areas
  - (f) Training concerning the methods used at the site to control matches, lighters, and other ignition sources
- (2) Materials Handling

Site personnel will be made familiar with the provisions of Chapter 29 of the Code of Federal Regulation Subpart N, Paragraphs 1910-176-1910.190 dealing with materials handling and storage. Only those portions applicable to the site need to be taught.

(3) Tank and Other Confined Space Hazards

A training program is established which ensures that trainees fully comprehend the safety measures for confined space entry. These safety measures must be implemented prior to maintenance requiring entry into a confined space and during start up or after any contamination or spill which could result in lethal conditions in a closed or confined area;

- (a) The vessel or area should be thoroughly ventilated.
- (b) Connecting pipelines should be disconnected or blanked off.
- (c) Air samples should be taken to prove absence of flammable vapors, and also in some cases of toxic or noxious materials.
- (d) Air samples should be taken to confirm the presence of a safe amount of oxygen.

- (e) A confined space entry permit will be used and be signed by the General Foreman, lead operator, and technician doing the work verifying the above steps have been satisfactorily complied with.
- (f) Personnel to enter vessel and safety observers will be equipped with life belts and ropes.
- (g) Appropriate respiratory protective devices will be provided. This will be a device that provides a respirable atmosphere such as an airline or a self-contained breathing apparatus. If applicable, appropriate protective clothing should be provided.
- (h) A safety observer will be present at the entrance to the vessel. He should be equipped with a self-contained breathing apparatus and appropriate clothing.
- (i) Life-line signals will be established prior to entry so that the worker and the safety man can communicate by tugging on the rope.
- (j) An additional man will be in the immediate vicinity to assist the safety observer if needed.
- (k) A worker will not be allowed to enter a confined space through an opening which requires him to "squeeze through". He cannot be removed quickly enough in emergency conditions. A 22-inch manhole should be standard. Small personnel can enter as small an opening as 18 inches.
- (l) All of the above procedures will be emphasized in a comprehensive training program. Employees will be required to display their competence prior to entering a confined space.

f. Buddy System

Operational personnel will be trained to always use a "buddy system" in potentially hazardous operations. The "buddy" is not to go into the area. He will function as a safety observer prepared to assist in the event of an emergency. He should be provided with the capability to communicate with the worker and the operational control area. If protective equipment is required by the operator, the safety observer should be equipped with the same equipment or better.

3. High Hazard Operations

At the Westates facility, situations which have the potential to cause extremely serious irreversible damage to human health and the environment are not expected

to exist. However, facility management will examine the facility carefully to determine the unlikely existence of any high hazard operations. Special training will then be provided to all management and appropriate operations personnel. This training will incorporate the following elements.

- a. Contingency awareness
- b. Need for systematic planning
- c. Analysis of probable and possible failures
- d. Hazard hunts
- e. Failsafe operation
- f. Simulated emergencies
- g. Automatic controls
- h. Emergency alarms signals and codes
- i. Special contingency instructions
- j. Degree of emergency

## MODULE 7 - MAINTAINING DOCUMENTATION

### I. BROAD AND LIMITED TRAINING

#### A. Maintaining Documentation

The appropriate facility personnel will be instructed in the following elements of reporting and record-keeping.

1. Use of the manifest system
2. Labeling and placarding
3. Incident reporting
4. Developing And Maintaining Training Records
  - a. Job titles and classification
  - b. Job duties and descriptions
  - c. Personnel names
  - d. Personnel training records
  - e. Contingency Plan records
5. Operating Record



Attachment 1

**IDENTITY OF WASTES HANDLED**  
**AND**  
**WASTE ANALYSIS PLAN**

## Table of Contents

| <u>Section</u>   | <u>Page</u> |
|--|-------------|
| 1.0 Introduction . . . . .   | 1-1         |
| 2.0 Identity of Wastes Handled . . . . .   | 2-1         |
| 2.1 EPA Waste Codes . . . . .  | 2-1         |
| 2.2 Type by Name . . . . .   | 2-1         |
| 2.3 Estimated Monthly and Annual Quantities . . . . .  | 2-1         |
| 2.4 Processes That Produced the Waste . . . . .  | 2-1         |
| 2.5 Processes Used for Handling the Waste . . . . .  | 2-1         |
| 2.6 Process Design Capacity and Units of Measure . . . . .   | 2-1         |
| 2.7 Results of Chemical and Physical Analyses of the Waste . . . . .                                 | 2-1         |
| 2.8 Hazardous Properties of the Waste . . . . .  | 2-2         |
| 3.0 Waste Analysis Plan . . . . .  | 3-1         |
| 3.1 Waste Analyses To Be Supplied By Hazardous Waste Generators . . . . .                            | 3-1         |
| 3.2 Procedures Used to Inspect Each Load of Hazardous Waste Received . . . . .                       | 3-2         |
| 3.3 Procedures Used to Confirm the Composition of each Load of Hazardous<br>Waste Received . . . . . | 3-2         |
| 3.4 Procedures to be Used to Obtain a Representative Sample of Waste . . . . .                       | 3-3         |
| 3.5 Retention and Disposal of Samples . . . . .  | 3-4         |
| 3.6 The Methods to be Used for Ensuring Compatibility with Handling Methods . . . . .                | 3-5         |
| 3.7 Methods to Ensure that the Waste Analysis Plan will be Kept Up to<br>Date . . . . .              | 3-5         |
| 3.8 Land Ban Notification . . . . .  | 3-5         |
| 4.0 Activated Carbon Product Quality Control Analyses . . . . .                                      | 4-1         |
| 5.0 Wastewater Analyses . . . . .  | 5-1         |

## Appendices

|   |  |
|---|--|
| A | Hazardous Wastes Received at the Parker Facility |
| B | Spent Carbon Profile Form                        |
| C | Incoming Waste Tally Sheet                       |
| D | Waste Screening Report                           |
| E | Random Number Table                              |
| F | Land Disposal Restriction Notification Form      |

## List of Tables

| <u>Table</u> | <u>Title</u>  | <u>Page</u> |
|--------------|---|-------------|
| 3-1          | Incoming Waste Inspection Analyses . . . . .        | 3-3         |
| 4-1          | Activated Carbon Quality Control Analyses . . . . . | 4-1         |

## 1.0 INTRODUCTION

This document has been prepared for the Westates Carbon - Arizona carbon reactivation facility located in Parker, Arizona. It is intended to comply with the waste analysis requirements stated in 40 CFR 265.13 for a TSD facility operating during Interim Status. The procedures and information which make up this document are intended as statement of Westates Carbon policy for the acceptance of hazardous spent carbon and the analysis of spent carbon and reactivated finished product. Although this document provides complete policy guidance, it may be supplemented by specific procedures promulgated in a Policy and Procedures Manual or other company documents.

Section 2.0 of this document identifies hazardous wastes to be handled at the Parker facility. Section 3.0 is the Waste Analysis Plan which includes the analysis procedures pertaining to the acceptance of spent carbon and quality control of the carbon reactivation process. Section 3.0 includes the analysis procedures pertaining to the quality control of the carbon reactivation process and Section 4.0 describes wastewater analysis procedures.

Revisions to this waste analysis plan may be made during Interim Status to address revised procedures, revised regulatory requirements, and to correct any deficiencies in the plan. However, revisions to the facility may be made only under certain conditions and in accordance with procedures provided in 40 CFR 270.72. The latest adopted revision of this document will apply.

## 2.0 IDENTITY OF WASTES

### 2.1 EPA Waste Code (40 CFR 261)

The EPA Waste Code from 40 CFR 261 for each waste accepted by the Parker facility is listed in Appendix A.

### 2.2 Type by Name

The name of each hazardous waste, corresponding to the EPA Waste Code, is presented in Appendix A.

### 2.3 Estimated Monthly and Annual Quantities Received With Units of Measure

The estimated annual and monthly quantity of each waste which may be received is listed in Appendix A.

### 2.4 Processes That Produced the Waste

Activated carbon is used in treatment equipment sold and serviced by Westates Carbon for the removal of organic compounds from liquid and vapor phase wastes. The carbon is contaminated during use and reaches its adsorptive capacity or becomes "spent" at customer facilities. The treatment equipment is used in a wide variety of municipal and commercial applications for removal of trace organic compounds from process streams. The industries which use this equipment include petroleum refining and marketing facilities, solvent cleaning facilities, plating companies, metal forming units, auto manufacturing and repair facilities, aircraft manufacturing and many other industries. Groundwater and soil remediation projects also make use of the equipment.

### 2.5 Processes Used for Handling the Waste

Waste carbon is received in D.O.T.-approved containers and in bulk loads in tank trucks. After inspection and acceptance at the facility, the containerized waste is stored in the containers in which it is received in designated storage areas in a warehouse. At the time of processing the containerized waste is dumped into a hopper and mixed with water to form a slurry which is transferred into storage tanks.

Bulk spent carbon is pumped as a water-carbon slurry directly into receiving tanks after acceptance. The spent carbon is later pumped into one of two furnaces (only one furnace is currently available -- the second furnace is in the engineering, procurement and construction phase) or reactivation in a high temperature, low-oxygen atmosphere. When it is discharged from the furnace, the reactivated carbon is cooled and transferred to product

storage tanks and is later repackaged and/or shipped in bulk loads to end users of the recycled carbon.

## 2.6 Process Design Capacity and Units of Measure

The Parker facility has the capacity to store 100,000 gallons of containerized waste and 44,880 gallons of bulk spent hazardous waste carbon. The facility has the capacity to reactivate 1,200 pounds per hour of spent carbon.

Tanks are also provided for the storage of 25,080 gallons of slurry water, and 19,080 gallons of scrubber blow-down water. Scrubber blowdown water is periodically discharged to the local sewer system, in accordance with an industrial wastewater discharge permit. The facility can also store 25,080 gallons of rainwater collected from paved areas, which is recycled into the carbon transfer system for consumptive use.

## 2.7 Results of Chemical and Physical Analyses of the Waste

Waste analyses will be solicited and accumulated by Westates Carbon as per the requirements of Waste Analysis Plan (see Section 3.0). These analytical data will be maintained on file at the Parker facility with the approved waste profile applications for each waste stream. These records will be maintained for the duration of the operating life of the facility.

## 2.8 Hazardous Properties of the Waste

The wastes listed may be ignitable and/or toxic. No wastes which are defined as reactive or corrosive per 40 CFR 261 are accepted at the facility.

### 3.0 WASTE ANALYSIS PLAN

#### 3.1 Waste Analyses To Be Supplied By Hazardous Waste Generators

Spent carbon processed at the Parker facility will be received only after it is pre-approved for processing by Westates as described below.

The prospective generator (originator) of a source of spent carbon will begin the approval process by making application to Westates using a Spent Carbon Profile Form (see Appendix B). The generator will complete the Profile Form in accordance with the guidance supplied with each form.

Section C.1. of the Spent Carbon Profile Form provides space for the generator to supply a summary of the chemical analysis performed for the influent waste stream being treated by the subject carbon or the analysis of the spent carbon itself. The generator must have the analysis performed in an approved laboratory (generally a laboratory certified to perform such analyses) and must attach a copy of the analytical data, as well as complete Section C.1 of the Spent Carbon Profile Form. Westates Carbon will provide the generator with assistance in finding a laboratory, and in some cases, may assist the generator in obtaining an analysis.

In lieu of a laboratory analysis, Westates will permit the generator, under certain circumstances, to certify that certain constituents are not present in the waste stream or the spent carbon, based on his knowledge of the waste or product stream producing the waste. Space is provided on the Spent Carbon Profile Form for this certification.

The generator must make a determination, based on his knowledge of the process producing the spent carbon, and the analyses discussed above, whether the spent carbon is a hazardous waste as defined by 40 CFR 261. The generator must also sign a certification that all information is true and accurate and submit a Land Disposal Restriction Notification Form, if applicable (see Section 3.8).

The generator is required to submit a revised Spent Carbon Profile Form whenever he has reason to believe that the nature of the spent carbon waste has changed (e.g., from process modifications). As a minimum each generator will be required to update his Spent Carbon Profile Form annually. The update will be requested by Westates Carbon, based on records maintained at the Parker facility.

The generator may also be required to submit a sample Uniform Hazardous Waste Manifest showing the data that will be provided for each shipment of waste. The Environmental Coordinator at the Parker facility will review the sample manifest, along with the Spent Carbon Profile Form and the Land Disposal Restriction Notification Form, and advise the generator whether the information is adequate and whether the waste is approved for shipment. When the waste is approved for shipment, the generator will be advised by phone,



fax, or mail and will be issued a waste approval number. He will also be notified concerning a schedule for pickup of the spent carbon.

### 3.2 Procedures Used to Inspect Each Load of Hazardous Waste Received

Upon arrival of each load at the facility, the Warehouse Person or another designated trained person will inspect each load to ensure that the quantity of waste agrees with the quantity stated on each manifest. For loads of containerized spent carbon, the drums or other containers will be counted to ensure that the quantity agrees with the manifest. Each container will be checked to ensure that a correctly completed hazardous waste label is present and that the label agrees with the contents stated on the manifest.

Bulk shipments will also be examined by the Warehouse Person or another designated trained person. The driver will be requested to open the top manways or "domes" after ensuring that the truck is equalized to atmospheric pressure. The Warehouse Person or another designated trained person will visually inspect the depth of the carbon. The estimated quantity in the truck will be compared with the quantity listed on the Bill of Lading and/or the Uniform Hazardous Waste Manifest, one of which must accompany each load. After the quantity check, samples of the tank contents will be obtained as described in Section 3.3.

An Incoming Waste Tally Sheet (see Appendix C) will be completed by the Warehouse Person or another designated trained person for each load. This form will be filed and maintained as part of the Operating Record of the facility. A discreet number will be assigned to each container and a label containing the number will be placed on each container.

The container number will consist of eight digits as follows.

First and second digits - year (e.g., 02 for 1992)

Third and fourth digits - month (e.g., 01=jan)

Fifth and sixth digits - day of month

Seventh, eighth, and ninth digits - Type of container and quantity of containers

Each bulk load will also be assigned a number for record keeping purposes. Bulk loads will be numbered in a similar fashion except the last three digits will be "BK" followed by the sequential number of the bulk load for that day. Thus, 020701BK1 would represent the first bulk load received on July 1, 1992.

### 3.3 Procedures Used to Confirm the Composition of each Load of Hazardous Waste Received

*Containerized Wastes.* Each container of spent carbon will be opened by or under the direction of the Warehouse Person or another designated trained person. The contents of the container will be visually inspected for foreign matter and the general appearance of the

carbon will be noted. As described in the sampling procedure (see Section 3.4) representative samples will be obtained from spent carbon containers. The carbon samples will be subjected to waste screening tests listed in Table 3-1.

*Bulk Wastes.* Each bulk load of spent carbon will be sampled as described in (see Section 3.4). The samples will be visually inspected for general appearance and the presence of foreign matter. The samples will be subjected to waste screening tests listed in Table 3-1.

*Laboratory Screening.* The samples of each bulk load and each grab sample from a container will be subjected to the screening analyses in Table 3-1. Grab samples from each bulk load will be composited prior to analysis. Each discrete sample from a spent carbon container will be analyzed separately. The results of the analyses will be recorded on the Waste Screening Report (see Appendix D) by the Lab Technician and reviewed by the Environmental Compliance Manager. If the spent carbon is accepted, the acceptance will be noted on the Incoming Waste Tally Sheet and the waste will be transferred into a designated storage tank or container storage area. The location will also be noted on the Incoming Waste Tally Sheet.

If, based on the visual inspection and laboratory screening analyses, the waste is different from that described on the customer Spent Carbon Profile Sheet and/or the Uniform Hazardous Waste Manifest, the generator will be contacted by phone and notified of the discrepancy. If the difference cannot be immediately resolved by phone, the waste may be retained onsite for up to five days, while the investigation of the discrepancy continues. If the discrepancy is not resolved, the waste will be rejected and returned to the generator. In the event of waste rejection, the generator's approval number applicable to the Spent Carbon Profile Form will be invalidated, and a new waste profile application must be submitted prior to any further receipt of the subject spent carbon.

| Table 3-1<br>Incoming Waste Inspection Analyses   |                   |
|---|-------------------|
| Analysis  | Reference         |
| pH <sup>1</sup>   | EPA Method 9040   |
| Ignitability  | EPA Method 1020   |
| Appearance  | Visual Inspection |
| Notes:  |                   |
| <sup>1</sup> Analysis performed on free liquids retained in subject waste sample or on a 1:1 mixture of the sample and deionized water. This analysis would be performed only on samples from wastes which were generated by the use of aqueous phase carbon. |                   |

### 3.4 Procedures to be Used to Obtain a Representative Sample of Waste

Sampling of spent carbon will be employed as part of the influent waste screening process as described below.

*Bulk Loads.* The manways on top of each bulk trailer will be opened by the truck driver. The Warehouse Person or another designated trained employee will obtain a total of three one-pint samples from one foot below the waste surface through separate manways. The samples will be obtained using a probe. The probe will be washed in detergent and rinsed with tap water after every sampling event, but not between samples from the same load. The samples will be taken to the laboratory where they will be composited prior to the screening analyses. After sampling, all manways on each trailer will be closed and tightened by the driver prior to any further movement of the truck.

*Containers.* Each container will be opened for the purpose of inspection and sampling. The lid or top on each container will be left loosely in place unless sampling or inspection of the container is actually occurring. The Warehouse Person or another designated trained employee will obtain one sample from each randomly selected container using the following selection strategy.

- The number of containers chosen for random selection from each waste generator will equal the square root plus one of the total shipped by the generator in each load. Thus, if a generator shipped one container, the container would be sampled. If a generator shipped sixteen containers, five would be sampled. Where the square root is not an integer, it will be rounded to the next highest number.
- The selection will be performed using a Random Number Table (Appendix E).
- If any container contains a waste which either is visually different from the profiled waste, or which fails the screening process described in Section 3.3, all containers from that waste generator will be sampled and subjected to the incoming waste inspection analyses listed in Table 3-1.

Each sample will be obtained using a probe from at least six inches below the surface of the spent carbon. The sample will be placed in clean sample jars, covered with an appropriate lid, and immediately taken to the facility laboratory for analysis. A label will be placed on each jar, indicating the container number, or bulk load number and the date of the sample. After sampling, the lid will be replaced on each container and sealed.

### 3.5 Retention and Disposal of Samples

All samples of spent carbon obtained for testing will be retained for at least 30 days or until the subject waste has been reactivated, whichever is later. The samples may be useful for comparison of waste characteristics before and after reactivation, and for tracing characteristics of the reactivated carbon.

Samples will be disposed at the end of the retention period by emptying them into a DOT container. Periodically, the contents of the container will be discharged into the furnace for reactivation with other compatible spent carbon. Empty sample containers will be washed and either reused or disposed as nonhazardous solid waste.

### 3.6 The Methods to be Used for Ensuring Compatibility with Handling Methods

The above waste testing procedures have been developed with cognizance of the waste storage and handling procedures at the Parker facility. The facility is designed to safely store, transfer and reactivate spent carbon, which is contaminated with wastes which are toxic and/or ignitable. The facility will not receive spent carbon which is defined as reactive or corrosive, or spent carbon identified by waste codes which are not authorized for receipt by the facility.

### 3.7 Methods to Ensure that the Waste Analysis Plan will be Kept Up to Date

Annually, as a minimum, the Plant Manager and the Environmental Compliance Manager shall review the waste analysis plan to determine if it is in compliance with current RCRA regulations and otherwise meets the needs of the facility. They shall jointly sign a statement that the plan was reviewed and found adequate. The statement shall be maintained in the permanent files at the facility.

The waste analysis plan shall also be reviewed whenever it is suspected of being inadequate or out of date. The statement described above shall be signed and maintained whenever the waste analysis plan is formally reviewed.

During Interim Status, if changes are necessary in the waste analysis plan, the Plant Manager and the Environmental Compliance Manager, shall delineate the proposed changes and forward a revised draft of the plan to the Westates Environmental Affairs Director for approval. After any further revision and approval by the Environmental Affairs Director, the revised waste analysis procedures will be incorporated into the plan. The transmittal letter issuing the revised plan shall be kept in the permanent files of the facility.

### 3.8 Land Disposal Restriction Notification Form

Generators of spent carbon which is a hazardous waste and which is restricted from land disposal pursuant to 40 CFR 268 will be required to provide appropriate documentation. Westates will provide Land Disposal Restriction Notification Form (see Appendix F) for use by the generator.

At the time of waste receipt, Westates Carbon will receive and review the form, which must accompany each shipment of spent carbon which is subject to land ban restrictions. Westates will file the completed form with the TSD copy of the hazardous waste manifest

as part of the facility operating record.

#### 4.0 ACTIVATED CARBON PRODUCT QUALITY CONTROL ANALYSES

Samples of each batch of reactivated carbon will be obtained and analyzed using the following procedure.

- Four separate one pint samples will be obtained from a point downstream of the quench chute. Each sample will be obtained in a clean labelled container with the date and time, batch number, sample number, and the name of the sampler. The samples will be composited into a clean metal pan and split for a representative sample.
- Representative samples of the composite will be subjected to the analyses listed in Table 3-2.

| Table 4-1<br>Activated Carbon Quality Control Analyses                        |   |
|---|---|
| Analysis  | Test Method Reference   |
| pH  | 1:1 Slurry with deionized water using EPA Method 9040                                   |
| Visual Appearance   | Visual Inspection   |
| Apparent Density  | ASTM Method D2458   |
| Carbon Tetrachloride Reactivity and Retentivity                               | ASTM Method D3467   |
| Optional Analyses for Record Purposes   |   |
| Particle Size Distribution  | ASTM Method D2862   |
| Iodine Number   | AWWA B600-78  |
| Total Ash   | ASTM Method D2866   |
| Analysis of Extract for Volatile and Nonvolatile Organic Compounds and Metals | TCLP Extraction (40 CFR 261 Appendix II) plus selected organic, and inorganic analyses. |

## 5.0 WASTEWATER ANALYSES

Industrial wastewater effluent shall be sampled and analyzed as prescribed in Wastewater Discharge Permit Number 1001-91 issued by the Colorado River Sewage System Joint Venture Authority. The permit specifies sampling location, frequency and methods of analysis. All analyses performed for purposes of compliance with this permit shall be performed by a laboratory certified by the Arizona Department of Health Services.

**APPENDIX A**

**HAZARDOUS WASTES RECEIVED  
AT THE PARKER FACILITY**



## NOTICE TO ALL GENERATORS

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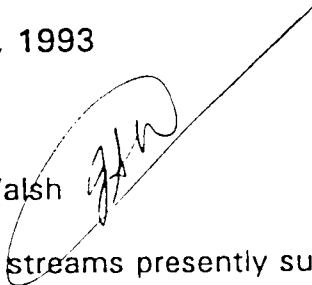
The following are the waste streams WCAI can accept. (Please note WCAI can accept F032 although it is not on the acceptance sheet.)

WCAI management reserves the right to not approve a profile that may jeopardize the safety of our employees or affect the plant in an adverse way.

**Westates Carbon-Arizona, Inc.**  
**FILE MEMO**

Date: May 5, 1993

To: File

From: Jeff Walsh 

Subject: Waste streams presently subject to TCLP or review.

|     |      |     |      |     |      |
|-----|------|-----|------|-----|------|
| 1.  | D004 | 11. | K002 | 21. | K102 |
| 2.  | D005 | 12. | K005 | 22. | P010 |
| 3.  | D006 | 13. | K008 | 23. | P011 |
| 4.  | D007 | 14. | K052 | 24. | P012 |
| 5.  | D008 | 15. | K061 | 25. | P013 |
| 6.  | D009 | 16. | K065 | 26. | P015 |
| 7.  | D010 | 17. | K071 | 27. | U032 |
| 8.  | D011 | 18. | K090 | 28. | U145 |
| 9.  | F006 | 19. | K091 | 29. | U146 |
| 10. | F035 | 20. | K100 |     |      |

# HAZARDOUS WASTES RECEIVED AT THE PARKER FACILITY

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  | ESTIMATED<br>ANNUAL<br>QUANTITY<br>(POUNDS) | ESTIMATED<br>MONTHLY<br>QUANTITY<br>(POUNDS) |
|----------------------|--|---|--|
| D001                 | A SOLID WASTE THAT EXHIBITS THE CHARACTERISTIC OF IGNITABILITY | 5,000                                       | 417  |
| D004                 | ARSENIC  | 5,000                                       | 417  |
| D005                 | BARIUM   | 5,000                                       | 417  |
| D006                 | CADMIUM  | 5,000                                       | 417  |
| D007                 | CHROMIUM   | 5,000                                       | 417  |
| D008                 | LEAD   | 5,000                                       | 417  |
| D009                 | MERCURY  | 5,000                                       | 417  |
| D010                 | SELENIUM   | 5,000                                       | 417  |
| D011                 | SILVER   | 5,000                                       | 417  |
| D012                 | ENDRIN   | 5,000                                       | 417  |
| D013                 | LINDANE  | 5,000                                       | 417  |
| D014                 | METHOXYCHLOR   | 5,000                                       | 417  |
| D015                 | TOXAPHENE  | 5,000                                       | 417  |
| D016                 | 2,4-D  | 5,000                                       | 417  |
| D017                 | 2,4,5-(SILVEX)   | 5,000                                       | 417  |
| D018                 | BENZENE  | 500,000                                     | 41,667                                       |
| D019                 | CARBON TETRACHLORIDE   | 5,000                                       | 417  |
| D020                 | CHLORDANE  | 5,000                                       | 417  |
| D021                 | CHLOROBENZENE  | 5,000                                       | 417  |
| D022                 | CHLOROFORM   | 100,000                                     | 8,333  |
| D023                 | O-CRESOL   | 5,000                                       | 417  |
| D024                 | M-CRESOL   | 5,000                                       | 417  |
| D025                 | P-CRESOL   | 5,000                                       | 417  |
| D026                 | CRESOL   | 5,000                                       | 417  |
| D027                 | 1,4-DICHLOROBENZENE  | 5,000                                       | 417  |
| D028                 | 1,2-DICHLOROETHANE   | 50,000                                      | 4,167  |
| D029                 | 1,1-DICHLOROETHYLENE   | 100,000                                     | 8,333  |
| D030                 | 2,4-DITROTOLUENE   | 5,000                                       | 417  |
| D031                 | HEPTACHLOR (AND ITS EPOXIDE)                                   | 5,000                                       | 417  |
| D032                 | HEXACHLOROBENZENE  | 5,000                                       | 417  |
| D033                 | HEXACHLOROBUTADIENE  | 5,000                                       | 417  |
| D034                 | HEXACHLOROETHANE   | 5,000                                       | 417  |
| D035                 | METHYL ETHYL KETONE  | 100,000                                     | 8,333  |
| D036                 | NITROBENZENE   | 5,000                                       | 417  |
| D037                 | PENTRACHLOROPHENOL   | 5,000                                       | 417  |
| D038                 | PYRIDINE   | 5,000                                       | 417  |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  | ESTIMATED<br>ANNUAL<br>QUANTITY<br>(POUNDS) | ESTIMATED<br>MONTHLY<br>QUANTITY<br>(POUNDS) |
|----------------------|--|---|--|
| D039                 | TETRACHLOROETHYLENE  | 500,000                                     | 41,667                                       |
| D040                 | TRICHLOROETHYLENE  | 500,000                                     | 41,667                                       |
| D041                 | 2,4,5-TRICHLOROPHENOL  | 5,000                                       | 417  |
| D042                 | 2,4,6-TRICHLOROPHENOL  | 5,000                                       | 417  |
| D043                 | VINYL CHLORIDE   | 50,000                                      | 4,167  |
| F001                 | SPENT HALOGENATED SOLVENTS USED IN DEGREASING:<br>TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE<br>CHLORIDE, 1,1,1 TRICHLOROETHANE, CARBON<br>TETRACHLORIDE, CHLORINATED FLUOROCARBONS; AND<br>MIXTURES/BLENDS CONTAINING A TOTAL OF TEN PERCENT OR<br>MORE (BY VOLUME) BEFORE USE OF ONE OR MORE OF THE<br>ABOVE SOLVENTS OR SOLVENTS LISTED IN F002, F004 AND F005;<br>AND STILL BOTTOMS FROM THE RECOVERY OF SPENT<br>SOLVENTS AND MIXTURES | 2,000,000                                   | 166,667                                      |
| F002                 | TETRACHLOROETHYLENE, METHYLENE CHLORIDE,<br>TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,<br>CHLOROBENZENE, 1,1,2-TRICHLOROETHANE; AND<br>MIXTURES/BLENDS CONTAINING A TOTAL OF 10% OR MORE (BY<br>VOLUME) BEFORE USE OF ONE OR MORE OF THE ABOVE<br>SOLVENTS OR SOLVENTS LISTED IN F002, F004 AND F005 AND<br>STILL BOTTOMS FROM RECOVERY OF SPENT SOLVENTS AND<br>MIXTURES   | 5,000                                       | 417  |
| F003                 | XYLENE, ACETONE ETHYL ACETATE, ETHYL BENZENE, ETHYL<br>ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL,<br>CYCLOHEXANANE, METHANOL; MIXTURES/BLENDS OF ABOVE;<br>AND 10% OR MORE (BY VOLUME) OF F001, F002, F004, F005; AND<br>STILL BOTTOMS FROM RECOVERY OF SPENT SOLVENTS  | 1,500,000                                   | 125,000                                      |
| F004                 | CRESOLS AND CRESYLIC ACID, NOTROBENZENE; SOLVENT<br>MIXTURES/BLENDS OF 10% OR MORE BEFORE USE OF ONE OR<br>MORE OF ABOVE OR F001, F002, F005; STILL BOTTOMS FROM<br>RECOVERY OF SPENT SOLVENTS   | 5,000                                       | 417  |
| F005                 | TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE,<br>ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL,<br>2-NITROPROPANE; MIXTURES/BLENDS OF 10% OR MORE (BY<br>VOLUME) OF ABOVE OR SOLVENTS LISTED IN F001, F002, F004<br>AND STILL BOTTOMS FROM RECOVERY OF SOLVENTS   | 1,500,000                                   | 125,000                                      |
| F006                 | WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING<br>OPERATIONS EXCEPT FROM SULFURIC ACID ANODIZING OF<br>ALUMINUM; TIN PLATING ON CARBON STEEL; ZINC PLATING<br>ON CARBON STEEL; ALUMINUM, ZINC ALUMINUM PLATING ON<br>CARBON STEEL; CLEANING/STRIPPING ASSOCIATED WITH TIN,<br>ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND<br>CHEMICAL ETCHING AND MILLING OF ALUMINUM   | 5,000                                       | 417  |
| F012                 | QUENCHING WASTEWATER TREATMENT SLUDGES FROM METAL<br>HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED  | 5,000                                       | 417  |
| F019                 | WASTEWATER TREATMENT SLUDGES FROM CHEMICAL<br>CONVERSION COATING OF ALUMINUM EXCEPT ZIRCONIUM<br>PHOSPHATING IN ALUMINUM CAN WASHING   | 5,000                                       | 417  |

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|----------------------|--|---|--|
| F020                 | WASTES (EXCEPT WASTEWATER, SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) USED AS A REACTANT, CHEMICAL INTERMEDIATE OR COMPONENT IN A FORMULATING PROCESS OF TRI- OR TETRACHLOROPHENOL OR INTERMEDIATES USED TO PRODUCE PESTICIDE DERIVATIVES   | 5,000                                       | 417  |
| F025                 | CONDENSED LIGHT ENDS, SPENT FILTERS AND AIDS, SPENT DESICCANT WASTES FROM PRODUCTION OF CERTAIN CHLORINATED ALIPHATIC HYDROCARBONS (HAVING CARBON CHAIN LENGTHS RANGING FROM 1-5 WITH VARYING AMOUNTS AND POSITIONS OF CHLORINE SUBSTITUTION) BY FREE RADICAL CATALYZED PROCESSES.   | 5,000                                       | 417  |
| F035                 | WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FROM WOOD PRESERVING PROCESS GENERATED AT PLANTS THAT USE INORGANIC PRESERVATIVES CONTAINING ARSENIC OR CHROMIUM. DOES NOT INCLUDE K001 BOTTOM SEDIMENT SLUDGE FROM TREATMENT OF WASTEWATER FROM WOOD PRESERVING PROCESSES USING CREOSOTE AND/OR PENTACHLOROPHENOL   | 5,000                                       | 417  |
| F037                 | PETROLEUM REFINERY PRIMARY OIL/WATER/SOLIDS SEPARATION SLUDGE. SLUDGE FROM GRAVITATIONAL SEPARATION OF OIL/WATER/SOLIDS DURING STORAGE OR TREATMENT OF PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. (OIL/WATER/SOLIDS SEPARATORS; TANKS AND IMPOUNDMENTS; DITCHES/CONVEYANCES; SUMPS; STORMWATER UNITS. SLUDGES FROM NON-CONTACT ONCE-THROUGH COOLING WATERS, SLUDGES FROM AGGRESSIVE BIOLOGICAL TREATMENT UNITS, K051 WASTES   | 5,000                                       | 417  |
| F038                 | PETROLEUM REFINERY SECONDARY (EMULSIFIED) OIL/WATER/SOLIDS SEPARATION SLUDGE-ANY SLUDGE AND/OR FLOAT GENERATED FROM THE PHYSICAL AND/OR CHEMICAL SEPARATION OF OIL/WATER/SOLIDS IN PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. SUCH WASTES INCLUDE, BUT ARE NOT LIMITED TO, ALL SLUDGES AND FLOATS GENERATED IN: INDUCED AIR FLOTATION (IAF) UNITS, TANKS AND IMPOUNDMENTS, AND ALL SLUDGES GENERATED IN DAF UNITS. SLUDGES GENERATED IN STORMWATER UNITS THAT DO NOT RECEIVE DRY WEATHER FLOW, SLUDGES GENERATED FROM NON-CONTACT ONCE-THROUGH COOLING WATERS SEGREGATED FOR TREATMENT FROM OTHER PROCESS OR OILY COOLING WATERS, SLUDGES AND FLOATS GENERATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS (INCLUDING SLUDGES AND FLOATS GENERATED IN ONE OR MORE ADDITIONAL UNITS AFTER WASTEWATERS HAVE BEEN TREATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS) AND F037, K048, AND K051 WASTES ARE NOT INCLUDED IN THIS LISTING. | 5,000                                       | 417  |
| F039                 | LEACHATE FROM DISPOSAL OF MORE THAN ONE RESTRICTED WASTE (HAZARDOUS UNDER SUBPART D; RESULTING FROM THE DISPOSAL OF ONE OR MORE OF EPA HAZARDOUS WASTES: F020, F021, F022, F026, F027, AND/OR F028)  | 5,000                                       | 417  |

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|----------------------|--|---|--|
| K001                 | WASTEWATER TREATMENT (WWT) SLUDGE BOTTOM SEDIMENT THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL     | 5,000                                       | 417  |
| K002                 | WWT SLUDGE FROM PRODUCTION OF CHROME YELLOW AND ORANGE PIGMENTS                                  | 5,000                                       | 417  |
| K003                 | WWT SLUDGE FROM PRODUCTION OF MOLYBDATE ORANGE PIGMENTS  | 5,000                                       | 417  |
| K004                 | WWT SLUDGE FROM PRODUCTION OF ZINC YELLOW PIGMENTS   | 5,000                                       | 417  |
| K005                 | WWT SLUDGE FROM PRODUCTION OF CHROME GREEN PIGMENTS  | 5,000                                       | 417  |
| K006                 | WWT SLUDGE FROM PRODUCTION OF CHROME OXIDE GREEN PIGMENTS (ANHYDROUS AND HYDRATED)               | 5,000                                       | 417  |
| K007                 | WWT SLUDGE FROM PRODUCTION OF IRON BLUE PIGMENTS   | 5,000                                       | 417  |
| K008                 | OVEN RESIDUE FROM PRODUCTION OF CHROME OXIDE GREEN PIGMENTS                                      | 5,000                                       | 417  |
| K009                 | DISTILLATION BOTTOMS FROM THE PRODUCTION OF ACETALDEHYDE FROM ETHYLENE                           | 5,000                                       | 417  |
| K010                 | DISTILLATION SIDE CUTS FROM PRODUCTION OF ACETALDEHYDE FROM ETHYLENE                             | 5,000                                       | 417  |
| K015                 | STILL BOTTOM SFROM DISTILLATION OF BENZYL CHLORIDE   | 5,000                                       | 417  |
| K016                 | HEAVY ENDS OR DISTILLATION RESIDUES FROM PRODUCTION OF CARBON TETRACHLORIDE                      | 5,000                                       | 417  |
| K017                 | HEAVY ENDS (STILL BOTTOMS) FROM PURIFICATION COLUMN IN PRODUCTION OF EPICHLOROHYDRIN             | 5,000                                       | 417  |
| K018                 | HEAVY ENDS FROM FRACTIONATION COLUMN IN ETHYL CHLORIDE PRODUCTION                                | 5,000                                       | 417  |
| K019                 | HEAVY ENDS FORM THE DISTILLATION OF ETHYLENE DICHLORIDE IN ETHYLENE DICHLORIDE PRODUCTION        | 5,000                                       | 417  |
| K020                 | HEAVY ENDS FROM DISTILLATION OF VINYL CHLORIDE IN VINYL CHLORIDE MONOMER PRODUCTION              | 5,000                                       | 417  |
| K022                 | DISTILLATION BOTTOM TARS FROM PRODUCTION OF PHENOL/ACETONE FROM CUMENE                           | 5,000                                       | 417  |
| K023                 | DISTILLATION LIGHT ENDS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE                   | 5,000                                       | 417  |
| K024                 | DISTILLATION BOTTOMS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE                      | 5,000                                       | 417  |
| K025                 | DISTILLATION BOTTOMS FROM THE PRODUCTION OF NITROBENZENE BY THE NITRATION OF BENZENE             | 5,000                                       | 417  |
| K026                 | STRIPPING STILL TAILS FROM PRODUCTION OF METHY ETHYL PYRIDINES                                   | 5,000                                       | 417  |
| K029                 | WASTE FROM PRODUCT STEAM STRIPPER IN PRODUCTION OF 1,1,1-TRICHLOROETHANE                         | 5,000                                       | 417  |
| K030                 | COLUMN BOTTOMS OR HEAVY ENDS FROM COMBINED PRODUCTION OF TRICHLOROETHYLENE AND PERCHLOROETHYLENE | 5,000                                       | 417  |
| K031                 | BY-PRODUCT SALTS GENERATED IN PRODUCTION OF MSMA AND CACODYLIC ACID                              | 5,000                                       | 417  |

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|----------------------|--|---|--|
| K032                 | WWT SLUDGE FROM PRODUCTION OF CHLORDANE  | 5,000                                       | 417  |
| K033                 | WWT AND SCRUB WATER FROM CHLORINATION OF<br>CYCLOPENTADIENE IN PRODUCTION OF CHLORDANE                                   | 5,000                                       | 417  |
| K034                 | FILTER SOLIDS FROM FILTRATION OF<br>HEXACHLOROCYCLOPENTADIENE IN PRODUCTION OF<br>CHLORDANE                              | 5,000                                       | 417  |
| K035                 | WWT SLUDGES GENERATED IN PRODUCTION OF CREOSOTE  | 5,000                                       | 417  |
| K036                 | STILL BOTTOMS FROM TOLUENE RECLAMATION DISTILLATION<br>IN PRODUCTION OF DISULFOTON                                       | 5,000                                       | 417  |
| K037                 | WWT SLUDGES FROM PRODUCTION DISULFOTON   | 5,000                                       | 417  |
| K038                 | WASTEWATER FROM WASHING AND STRIPPING OF PHORATE<br>PRODUCTION   | 5,000                                       | 417  |
| K039                 | FILTER CAKE FROM FILTRATIN OF<br>DIETHYLPHOSPHORODITHIOIC ACID IN PRODUCTION OF<br>PHORATE                               | 5,000                                       | 417  |
| K040                 | WWT SLUDGE FROM PRODUCTION OF PHORATE  | 5,000                                       | 417  |
| K041                 | WWT SLUDGE FORM PRODUCTION OF TOXAPHENE  | 5,000                                       | 417  |
| K042                 | HEAVY ENDS OR DISTILLATION RESIDUES FROM DISTILLATION<br>OF TETRACHLOROBENZENE IN PRODUCTION OF 2,4,5-T                  | 5,000                                       | 417  |
| K046                 | WASTEWATER TREATMENT SLUDGES FROM THE<br>MANUFACTURING, FORMULATION AND LOADING OF LEAD-<br>BASED INITIATING COMPOUNDS.  | 5,000                                       | 417  |
| K048                 | DISSOLVED AIR FLOTATION FLOAT FROM PETROLEUM<br>REFINING INDUSTRY  | 5,000                                       | 417  |
| K049                 | SLOP OIL EMULSION SOLIDS FROM PETROLEUM REFINING<br>INDUSTRY   | 5,000                                       | 417  |
| K050                 | HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM<br>PETROLEUM REFINING INDUSTRY  | 5,000                                       | 417  |
| K051                 | API SEPARATOR SLUDGE FROM PETROLEUM REFINING<br>INDUSTRY   | 5,000                                       | 417  |
| K052                 | TANK BOTTOMS (LEADED) FROM PETROLEUM REFINING<br>INDUSTRY  | 5,000                                       | 417  |
| K061                 | EMISSION CONTROL DUST/SLUDGE FROM PRIMARY<br>PRODUCTION OF STEEL IN ELECTRIC FURNACES                                    | 5,000                                       | 417  |
| K062                 | SPENT PICKLE LIQUOR GENERATED BY STEEL FINISHING<br>OPERAITONS OF FACILITIES WITHIN IRON AND STEEL INDUSTRY              | 5,000                                       | 417  |
| K064                 | ACID PLANT BLOWDOWN SLURRY/SLUDGE RESULTING FROM<br>THE THICKENING OF BLOWDOWN SLURRY FROM PRIMARY<br>COPPER PRODUCTION  | 5,000                                       | 417  |
| K065                 | SURFACE IMPOUNDMENT SOLIDS CONTAINED IN AND DREDGED<br>FROM SURFACE IMPOUNDMENTS AT PRIMARY LEAD SMELTING<br>FACILITIES. | 5,000                                       | 417  |
| K066                 | SLUDGE FROM TREATMENT OF PROCESS WASTEWATER AND/OR<br>ACID PLANT BLOWDOWN FROM PRIMARY ZINC PRODUCTION                   | 5,000                                       | 417  |

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|----------------------|--|---|--|
| K071                 | BRINE PURIFICATION MUDS FROM MERCURY CELL PROCESS IN CHLORINE PRODUCTION WHERE SEPARATELY PREPURIFIED BRINE IS NOT USED  | 5,000                                       | 417  |
| K073                 | CHLORINATED HYDROCARBON WASTE FROM PURIFICATION STEP OF THE DIAPHRAGM CELL PROCESS USING GRAPHITE ANODES IN CHLORINE PRODUCTION  | 5,000                                       | 417  |
| K083                 | DISTILLATION BOTTOMS FROM ANILINE PRODUCTION   | 5,000                                       | 417  |
| K084                 | WWT SLUDGES GENERATED DURING PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS   | 5,000                                       | 417  |
| K085                 | DISTILLATION OR FRACTIONATION COLUMN BOTTOMS FROM PRODUCTION OF CHLOROBENZENES   | 5,000                                       | 417  |
| K086                 | SOLVENT WASHES AND SLUDGES, CAUSTIC WASHES AND SLUDGES, OR WATER WASHES AND SLUDGES FROM CLEANING TUBS AND EQUIPMENT USED IN FORMULATION OF INK FROM PIGMENTS, DRIERS, SOAPS, STABILIZERS CONTAINING CHROMIUM AND LEAD | 5,000                                       | 417  |
| K087                 | DECANTER TANK TAR SLUDGE FROM COKING   | 5,000                                       | 417  |
| K088                 | SPENT POTLINERS FROM PRIMARY ALUMINUM REDUCTION  | 5,000                                       | 417  |
| K090                 | EMISSION CONTROL DUST OR SLUDGE FROM FERROCHROMIUMSILICON PRODUCTION   | 5,000                                       | 417  |
| K091                 | EMISSION CONTROL DUST OR SLUDGE FROM FERROCHROMIUM PRODUCTION  | 5,000                                       | 417  |
| K093                 | DISTILLATION LIGHT ENDS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE  | 5,000                                       | 417  |
| K094                 | DISTILLATION BOTTOMS FROM PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE   | 5,000                                       | 417  |
| K095                 | DISTILLATION BOTTOMS FROM PRODUCTION OF 1,1,1-TRICHLOROETHANE  | 5,000                                       | 417  |
| K096                 | HEAVY ENDS FROM HEAVY ENDS COLUMN FROM PRODUCTION OF 1,1,1-TRICHLOROETHANE   | 5,000                                       | 417  |
| K097                 | VACUUM STRIPPER DISCHARGE FROM CHLORDANE CHLORINATOR IN PRODUCTION OF CHLORDANE  | 5,000                                       | 417  |
| K098                 | UNTREATED PROCESS WASTEWATER FROM PRODUCTION OF TOXAPHENE  | 5,000                                       | 417  |
| K100                 | WASTE LEACHING SOLUTION FROM ACID LEACHING OF EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING  | 5,000                                       | 417  |
| K101                 | DISTILLATION TAR RESIDUES FROM DISTILLATION OF ANILINE-BASED COMPOUNDS IN PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS  | 5,000                                       | 417  |
| K102                 | RESIDUE FROM USE OF ACTIVATED CARBON FOR DECOLORIZATION IN PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS   | 5,000                                       | 417  |



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|----------------------|--|---|--|
| K103                 | PROCESS RESIDUES FROM ANILINE EXTRACTION FROM PRODUCTION OF ANILINE  | 5,000                                       | 417  |
| K104                 | COMBINED WASTEWATER STREAMS GENERATED FROM NITROBENZENE/ANILINE PRODUCTION   | 5,000                                       | 417  |
| K105                 | SEPARATED AQUEOUS STREAM FROM THE REACTOR PRODUCT WASHING STEP IN PRODUCTION OF CHLOROBENZENES   | 5,000                                       | 417  |
| K106                 | WWT SLUDGE FROM MERCURY CELL PROCESS IN CHLORINE PRODUCTION  | 5,000                                       | 417  |
| K111                 | PRODUCT WASHWATERS FROM THE PRODUCTION OF DINITROTOLUENE VIA NITRATION OF TOLUENE  | 5,000                                       | 417  |
| K112                 | REACTION BY-PRODUCT WATER FROM THE DRYING COLUMN IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE   | 5,000                                       | 417  |
| K113                 | CONDENSED LIQUID LIGHT ENDS FROM THE PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE  | 5,000                                       | 417  |
| K114                 | VICINALS FROM PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE   | 5,000                                       | 417  |
| K115                 | HEAVY ENDS FROM THE PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE   | 5,000                                       | 417  |
| K116                 | ORGANIC CONDENSATE FROM SOLVENT RECOVERY COLUMN IN PRODUCTION OF TOLUENE DIISOCYANATE VIA PHOSGENATION OF TOLUENEDIAMINE   | 5,000                                       | 417  |
| K117                 | WASTEWATER FROM THE REACTOR VENT GAS SCRUBBER IN PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE  | 5,000                                       | 417  |
| K118                 | SPENT ADSORBENT SOLIDS FROM PURIFICATION OF ETHYLENE DIBROMIDE IN PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE   | 5,000                                       | 417  |
| K124                 | REACTOR VENT SCRUBBER WATER FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS  | 5,000                                       | 417  |
| K125                 | FILTRATION, EVAPORATION, AND CENTRIFUGATION SOLIDS FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.  | 5,000                                       | 417  |
| K126                 | BAGHOUSE DUST AND FLOOR SWEEPINGS IN MILLING AND PACKAGING OPERATIONS FROM PRODUCTION OR FORMULATION OF ETHYLENE BIS DITHIOCARBAMIC ACID AND ITS SALTS                                   | 5,000                                       | 417  |
| P001                 | 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% | 5,000                                       | 417  |
| P002                 | ACETAMINE, N-(AMINOTHIOXOMETHYL); Also known as 1-ACETYL-2-THIOUREA  | 5,000                                       | 417  |
| P003                 | ACROLEIN; Also known as 2-PROPENAL   | 5,000                                       | 417  |

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|----------------------|--|---|--|
| P004                 | ALDRIN; Also known as 1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA-CHLORO-1,4,4A,5,8,8A,-HEXAHYDRO, (ALPHA, 4ALPHA, 4 ABETA, 5 ALPHA, 8ALPHA, 8ABETA)-                               | 5,000                                       | 417  |
| P005                 | ALLYL ALCOHOL; Also known as 2-PROPEN-1-OL   | 5,000                                       | 417  |
| P007                 | 5-(AMINOMETHYL)-3-ISOXAZOLOL; Also known as 3(2H)-ISOXAZOLONE, 5-(AMINOMETHYL)-  | 5,000                                       | 417  |
| P008                 | 4-AMINOPYRIDINE; Also known as 4-PYRIDINAMINE  | 5,000                                       | 417  |
| P010                 | ARSENIC ACID $H_3AsO_4$  | 5,000                                       | 417  |
| P011                 | ARSENIC OXIDE $As_2O_5$ ; Also known as ARSENIC PENTOXIDE  | 5,000                                       | 417  |
| P012                 | ARSENIC OXIDE $As_2O_3$ ; Also known as ARSENIC TRIOXIDE   | 5,000                                       | 417  |
| P013                 | BARIUM CYANIDE   | 5,000                                       | 417  |
| P014                 | BENZENETHIOL; Also known as THIOPHENOL   | 5,000                                       | 417  |
| P015                 | BERYLLIUM  | 5,000                                       | 417  |
| P016                 | DICHLOROMETHYL ETHER;<br>Also known as METHANE, OXYBIS[CHLORO-   | 5,000                                       | 417  |
| P017                 | BROMOACETONE; Also known as 2-PROPANONE, 1-BROMO-  | 5,000                                       | 417  |
| P018                 | BRUCINE  | 5,000                                       | 417  |
| P020                 | DIOSEB;<br>Also known as PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-   | 5,000                                       | 417  |
| P021                 | CALCIUM CYANIDE; Also known as CALCIUM CYANIDE $Ca(CN)_2$  | 5,000                                       | 417  |
| P022                 | CARBON DISULFIDE   | 5,000                                       | 417  |
| P023                 | ACETALDEHYDE, CHLORO-;<br>Also known as CHLOROACETALDEHYDE   | 5,000                                       | 417  |
| P024                 | BENZENAMINE, 4-CHLORO-; Also known as P-CHLORANILINE   | 5,000                                       | 417  |
| P026                 | 1-(O-CHLOROPHENYL)THIOUREA;<br>Also known as THIOUREA, (2-CHLOROPHENYL)-   | 5,000                                       | 417  |
| P027                 | PROPANENITRILE, 3-CHLORO-;<br>Also known as 3-CHLOROPROPIONITRILE  | 5,000                                       | 417  |
| P028                 | BENZENE, (CHLOROMETHYL)-; Also known as BENZYL CHLORIDE  | 5,000                                       | 417  |
| P029                 | COPPER CYANIDE; Also known as COPPER CYANIDE $Cu(CN)_2$  | 5,000                                       | 417  |
| P030                 | CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED  | 5,000                                       | 417  |
| P031                 | CYANOGEN; Also known as ETHANEDINITRILE  | 5,000                                       | 417  |
| P033                 | CYANOGEN CHLORIDE;<br>Also known as CYANOGEN CHLORIDE $(CN)Cl$   | 5,000                                       | 417  |
| P034                 | 2-CYCLOHEXYL-4,6-DINITROPHENOL;<br>Also known as PHENOL, 2-CYCLOHEXYL-4,6-DINITRO-   | 5,000                                       | 417  |
| P036                 | ARSONOUS DICHLORIDE, PHENYL-;<br>Also known as DICHLOROPHENYLARSINE  | 5,000                                       | 417  |
| P037                 | DIELDRIN; Also known as 2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETS, 2AALPHA, 3BETAK, 6BETA, 6AALPHA, 7BETA, 7AALPHA)- | 5,000                                       | 417  |
| P038                 | ARSINE, DIETHYL-; Also known as DIETHYLARSINE  | 5,000                                       | 417  |

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|----------------------|---|---|--|
| P039                 | PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL]ESTER; Also known as DISULFOTON   | 5,000                                       | 417  |
| P040                 | O,O-DIETHYL O-PYRAZINYL PHOSPHOROTHIOATE;<br>Also known as PHOSPHOROTHIOIC ACID, O, O-DIMETHYL O-(4-NITROPHENYL) ESTER  | 5,000                                       | 417  |
| P041                 | PHOSPHORIC ACID, DIETHYL 4-NITROPHENYL ESTER;<br>Also known as DIETHYL-P-NITROPHENYL PHOSPHATE  | 5,000                                       | 417  |
| P042                 | 1,2-BENZENEDIOL, 4-[HYDROXY-2-(METHYLAMINO)ETHYL]-,(R)-;<br>Also known as EPINEPHRINE   | 5,000                                       | 417  |
| P043                 | DIISOPROPYLFLUOROPHOSPHATE (DFP); Also known as PHOSPHOROFLUORIDIC ACID, BIS (1-METHYLETHYL)ESTER   | 5,000                                       | 417  |
| P044                 | DIMETHOATE;<br>Also known as PHOSPHORODITHIOIC ACID, O, O-DIMETHYL S-[2-(METHYLAMINO)-2-OXOETHYL]ESTER  | 5,000                                       | 417  |
| P045                 | 2-BUTANONE, 3, 3-DIMETHYL-1-(METHYITHIO)-, O-[METHYLOAMINO)CARBONYL]OXIME;<br>Also known as THIOFANOX   | 5,000                                       | 417  |
| P046                 | BENZENEETHANAMINE, ALPHA, ALPHA-DIMETHYL-;<br>Also known as ALPHA, ALPHA-DIMETHYLPHENETHYLAMINE   | 5,000                                       | 417  |
| P047                 | 4,6-DINITRO-O-CRESOL, & SALTS;<br>Also known as PHENOL, 2-METHYL-4,6-DINITRO-, & SALTS  | 5,000                                       | 417  |
| P048                 | 2,4-DINITROPHENOL; Also known as PHENOL, 2,4-DINITRO-   | 5,000                                       | 417  |
| P049                 | DITHIOBIURET;<br>Also known as THIOIMIDODICARBONIC DIAMIDE [H <sub>2</sub> N)C(S)] <sub>2</sub> NH  | 5,000                                       | 417  |
| P050                 | ENDOSULFAN;<br>Also known as 6M9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,1K0-HEXACHLORO-1,5,5A,6,9,91-HEXAHYDRO-,3-OXIDE  | 5,000                                       | 417  |
| P051                 | 2,7:3,6-DIMETHANONAPHTH [2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)-, & METABOLITES; Also known as ENDRIN;<br>Also known as ENDRIN, & METABOLITES | 5,000                                       | 417  |
| P054                 | AZIRIDINE; Also known as ETHYLENEIMINE  | 5,000                                       | 417  |
| P056                 | FLUORINE  | 5,000                                       | 417  |
| P057                 | ACETAMIDE, 2-FLUORO-; Also known as FLUOROACETAMIDE   | 5,000                                       | 417  |
| P058                 | ACETIC ACID, FLUORO-,SODIUM SALT;<br>Also known as FLUOROACETIC ACIDE, SODIUM SALT  | 5,000                                       | 417  |
| P059                 | HEPTACHLOR;<br>Also known as 4,7-METHANO-1H-INDENE, 1,4,5,6,7,8, 8-HEPTACHLORO-3A,4,7,7A-TETRAHYDRO-  | 5,000                                       | 417  |
| P060                 | 1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA-CHLORO-1,4,4A,5,7,8,8A-HEXAHYDRO-(1ALPHA, 4ALPHA, 4ABETA, 5BETA, 8BETA, 8ABETA)-; Also known as ISODRIN  | 5,000                                       | 417  |
| P062                 | HEXAETHYL TETRAPHOSPHATE;<br>Also known as TETRAPHOSPHORIC ACID, HEXAETHYL ESTER  | 5,000                                       | 417  |
| P063                 | HYDROCYANIC ACID; Also known as HYDROGEN CYANIDE  | 5,000                                       | 417  |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   | ESTIMATED<br>ANNUAL<br>QUANTITY<br>(POUNDS) | ESTIMATED<br>MONTHLY<br>QUANTITY<br>(POUNDS) |
|----------------------|---|---|--|
| P064                 | METHANE, ISOCYANATO-  | 5,000                                       | 417  |
| P066                 | ETHANIMIDOTHIOIC ACID,<br>N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER;<br>Also known as METHOMYL       | 5,000                                       | 417  |
| P067                 | AZINIDINE, 2-METHYL; Also known as 1,2-PROPYLENIMINE  | 5,000                                       | 417  |
| P068                 | HYDRAZINE, METHYL-; Also known as METHYL HYDRAZINE  | 5,000                                       | 417  |
| P069                 | 2-METHYLLACTONITRILE;<br>Also known as PROPANENITRILE, 2-HYDROXY-2-METHYL-                                | 5,000                                       | 417  |
| P070                 | ALDICARB; Also known as PROPANAL, 2-METHYL-2-<br>(METHYLTHIO)-, O-[(METHYLAMINO)CARBONYL]OXIME            | 5,000                                       | 417  |
| P071                 | METHYL PARATHION; Also known as PHOSPHOROTHIOIC ACID,<br>O, G,-DIMETHYL O-(4-NITROPHENYL)ESTER            | 5,000                                       | 417  |
| P072                 | ALPHA-NAPHTHYLTHIOUREA;<br>Also known as THIOUREA, 1-NAPHTHALENYL-  | 5,000                                       | 417  |
| P073                 | NICKEL CARBONYL;<br>Also known as NICKEL CARBONYL NI(CO) <sub>4</sub> , (T-4)-                            | 5,000                                       | 417  |
| P074                 | NICKEL CYANIDE; Also known as NICKEL CYNAIDE NI(CN) <sub>2</sub>  | 5,000                                       | 417  |
| P075                 | NICOTINE, & SALTS; Also known as<br>PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (S)-, & SALTS                 | 5,000                                       | 417  |
| P077                 | BENZENAMINE, 4-NITRO-; Also known as P-NITROANILINE   | 5,000                                       | 417  |
| P078                 | NITROGEN DIOXIDE; Also known as NITROGEN OXIDE NO <sub>2</sub>  | 5,000                                       | 417  |
| P082                 | METHANAMINE, N-METHYL-N-NITROSO-;<br>Also known as N-NITROSODIMETHYLAMINE                                 | 5,000                                       | 417  |
| P084                 | N-NITROSOMETHYLVINYLAMINE<br>Also known as VINYLAMINE, N-METHYL-N-NITROSO-                                | 5,000                                       | 417  |
| P085                 | DIPHOSPHORAMIDE, OCTAMETHYL-<br>Also known as OCTAMETHYLPYROPHOSPHORAMIDE                                 | 5,000                                       | 417  |
| P087                 | OSMIUM OXIDE OSO <sub>4</sub> , (T-4)-; Also known as OSMIUM TETROXIDE                                    | 5,000                                       | 417  |
| P088                 | ENDOTHALL; Also known as 7-OXABICYCLO[2.2.1]HEPTANE-2,3-<br>DICARBOXYLIC ACID                             | 5,000                                       | 417  |
| P089                 | PARATHION; Also known as PHOSPHORIC ACID, O,O-DIETHYL O-(<br>4-NITROPHENYL)ESTER                          | 5,000                                       | 417  |
| P092                 | MERCURY, (ACETATO-O)PHENYL-;<br>Also known as PHENYLMERCURY ACETATE                                       | 5,000                                       | 417  |
| P093                 | PHENYLTHIOUREA; Also known as THIOUREA, PHENYL-   | 5,000                                       | 417  |
| P094                 | PHORATE; Also known as PHOSPHORODITHIOIC ACID, O,O-<br>DIETHYL; Also known as S-[ETHYLTHIO)METHYL] ESTER  | 5,000                                       | 417  |
| P095                 | CARBONIC DICHLORIDE; Also known as PHOSGENE   | 5,000                                       | 417  |
| P096                 | HYDROGEN PHOSPHIDE; Also known as PHOSPHINE   | 5,000                                       | 417  |
| P097                 | FAMPHUR; Also known as PHOSPHOTHIOIC ACID,<br>O-[4-[(DIMETHYLAMINO)SULFONYL]PHENYL]<br>O,O-DIMETHYL ESTER | 5,000                                       | 417  |
| P098                 | POTASSIUM CYANIDE   | 5,000                                       | 417  |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   | ESTIMATED<br>ANNUAL<br>QUANTITY<br>(POUNDS) | ESTIMATED<br>MONTHLY<br>QUANTITY<br>(POUNDS) |
|----------------------|---|---|--|
| P099                 | ARGENTATE(1-), BIS(CYANO-C)-, POTASSIUM;<br>Also known as POTASSIUM SILVER CYANIDE  | 5,000                                       | 417  |
| P101                 | ETHYL CYANIDE; Also known as PROPANENITRILE   | 5,000                                       | 417  |
| P102                 | PROPARGYL ALCOHOL; Also known as 1-PROPYN-1-OL  | 5,000                                       | 417  |
| P103                 | SELENOUREA  | 5,000                                       | 417  |
| P104                 | SILVER CYANIDE  | 5,000                                       | 417  |
| P105                 | SODIUM AZIDE  | 5,000                                       | 417  |
| P106                 | SODIUM CYANIDE  | 5,000                                       | 417  |
| P108                 | STRYCHNIDIN-10-ONE, & SALTS;<br>Also known as STRYCHNINE, & SALTS   | 5,000                                       | 417  |
| P109                 | TETRAETHYLDITHIOPYROPHOSPHATE; Also known as<br>THIODIPHOSPHIRIC ACID, TETRAETHYL ESTER   | 5,000                                       | 0  |
| P110                 | TETRAETHYL LEAD   | 5,000                                       | 0  |
| P113                 | THALLIUM OXIDE TL <sub>2</sub> O <sub>3</sub>   | 5,000                                       | 0  |
| P114                 | THALLIUM(L) SELENITE  | 5,000                                       | 0  |
| P115                 | THALLIUM(L) SULFATE   | 5,000                                       | 0  |
| P116                 | THIOSEMICARBAZIDE   | 5,000                                       | 0  |
| P118                 | TRICHLOROMETHANETHIOL   | 5,000                                       | 0  |
| P119                 | VANADIC ACID, AMMONIUM SALT   | 5,000                                       | 0  |
| P120                 | VANADIUM PENTOXIDE  | 5,000                                       | 0  |
| P121                 | ZINC CYANIDE  | 5,000                                       | 0  |
| P123                 | TOXAPHENE   | 5,000                                       | 417  |
| U001                 | ACETALDEHYDE (I); Also known as ETHANAL (I)   | 5,000                                       | 417  |
| U002                 | ACETONE (I); Also known as 2-PROPANONE (I)  | 5,000                                       | 417  |
| U003                 | ACETONITRILE (I,T)  | 5,000                                       | 417  |
| U004                 | ACETONITRILE (I,T)  | 5,000                                       | 417  |
| U005                 | 2, ACETYLAMINOFLUORENE;<br>Also known as ACETAMIDE, N-9H-FLUOREN-2-YL-  | 5,000                                       | 417  |
| U007                 | ACRYLAMIDE; Also known as 2-PROPENAMIDE   | 5,000                                       | 417  |
| U008                 | ACRYLIC ACID (I); Also known as 2-PROPENOIC ACID (I)  | 5,000                                       | 417  |
| U009                 | ACRYLONITRILE; Also known as 2-PROPENENITRILE   | 5,000                                       | 4170   |
| U010                 | AZIRINO[2',3':3,4]PYRROLO[1,2-a]INDOLE-4,7-DIONE,6-AMINO-8-<br>[[[(AMINOCARBONYL)OXY]METHYL]-1,1a,2,8,8a,8b-HEXAHYDRO-<br>8a-METHOXY-5-METHYL-, [1aS-(1AALPHA, 8BETA, 8AALPHA,<br>8BALPHA)]-; Also known as MITOMYCIN C | 5,000                                       | 4170   |
| U011                 | AMITROLE; Also known as 1H-1,2,-TRIAZOL-3-AMINE   | 5,000                                       | 4170   |
| U012                 | ANILINE (I,T); Also known as BENZENAMINE (I,T)  | 5,000                                       | 417  |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  |       | 0   |
|----------------------|--|-------|-----|
| U014                 | AURAMINE; Also known as BENZENAMINE,<br>4,4'-CARBONIMIDOYLBIS[N,N-DIMETHYL-  | 5,000 | 417 |
| U015                 | AZASERINE; Also known as L-SERINE, DIAZOACETATE (ESTER)  | 5,000 | 417 |
| U016                 | BENZ[C]ACRIDINE  | 5,000 | 417 |
| U017                 | BENZAL CHLORIDE;<br>Also known as BENZENE,(DICHLOROMETHYL)-  | 5,000 | 417 |
| U018                 | BENZ[A]ANTHRACENE  | 5,000 | 417 |
| U019                 | BENZENE (I,T)  | 5,000 | 417 |
| U021                 | BENZIDINE; Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE  | 5,000 | 417 |
| U022                 | BENZO[A]PYRENE   | 5,000 | 417 |
| U024                 | DICHLOROMETHOXY ETHANE;<br>Also known as ETHANE, 1,1'-[METHYLENEBIS(OXY)]BIS[2-CHLORO-   | 5,000 | 417 |
| U025                 | DICHLOROETHYL ETHER;<br>Also known as ETHANE,1,1'-OXYBIS[2-CHLORO-   | 5,000 | 417 |
| U026                 | CHLORNAPHAZIN;<br>Also known as NAPHTHALENAMINE, N,N'-BIS(2-CHLOROETHYL)-  | 5,000 | 417 |
| U027                 | DICHLOROISOPROPYL ETHER;<br>Also known as PROPANE, 2,2'-OXYBIS[2-CHLORO-   | 5,000 | 417 |
| U028                 | 1,2-BENZENEDICARBOXYLIC ACID, BIS(2-ETHYLHEXYL) ESTER;<br>Also known as DIETHYLHEXYL PHTHALATE                                   | 5,000 | 417 |
| U029                 | METHANE, BROMO-; Also known as METHYL BROMIDE  | 5,000 | 417 |
| U030                 | BENZENE, 1-BROMO-4-PHENOXY-;<br>Also known as 4-BROMOPHENYL PHENYL ETHER   | 5,000 | 417 |
| U031                 | 1-BUTANOL (I); Also known as N-BUTYL ALCOHOL (I)   | 5,000 | 417 |
| U032                 | CHROMIC ACID H <sub>2</sub> CrO <sub>4</sub> , CALCIUM SALT;<br>Also known as CALCIUM CHROMATE                                   | 5,000 | 417 |
| U034                 | CHLORAL; Also known as ACETALDEHYDE, TRICHLORO-  | 5,000 | 417 |
| U035                 | CHLORAMBUCIL; Also known as BENZENE BUTANOIC ACID,<br>4-[BIS(2-CHLOROETHYL)AMINO]-   | 5,000 | 417 |
| U036                 | CHLORDANE, ALPHA & GAMMA ISOMERS;<br>Also known as 4,7-METHANO-1H-INDENE,<br>1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO- | 5,000 | 417 |
| U037                 | CHLOROBENZENE; Also known as BENZENE, CHLORO-  | 5,000 | 417 |
| U038                 | CHLOROBENZILATE;<br>Also known as BENZENEACETIC ACID, 4-CHLORO-ALPHA-<br>(4-CHLOROPHENYL)-ALPHA-HYDROXY-, ETHYL ESTER            | 5,000 | 417 |
| U039                 | P-CHLORO-M-CRESOL;<br>Also known as PHENOL, 4-CHLORO-3-METHYL-   | 5,000 | 417 |
| U041                 | EPICHLOROHYDRIN; Also known as OXIRANE, (CHLOROMETHYL)-  | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   |       | 0   |
|----------------------|---|-------|-----|
| U042                 | 2-CHLOROETHYL VINYL ETHER;<br>Also known as ETHENE, (2-CHLOROETHOXY)-   | 5,000 | 417 |
| U043                 | VINYL CHLORIDE; Also known as ETHENE, CHLORO-   | 5,000 | 417 |
| U044                 | CHLOROFORM; Also known as METHANE, TRICHLORO-   | 5,000 | 417 |
| U045                 | METHANE, CHLORO- (I,T); Also known as METHYL CHLORIDE (I,T)   | 5,000 | 417 |
| U046                 | CHLOROMETHYL METHYL ETHER;<br>Also known as METHANE, CHLOROMETHOXY-   | 5,000 | 417 |
| U047                 | BETA-CHLORONAPHTHALENE;<br>Also known as NAPHTHALENE, 2-CHLORO-   | 5,000 | 417 |
| U048                 | O-CHLOROPHENOL; Also known as PHENOL, 2-CHLORO-   | 5,000 | 417 |
| U049                 | 4-CHLORO-O-TOLUIDINE, HYDROCHLORIDE; Also known as<br>BENZENAMINE, 4-CHLORO-2-METHYL, HYDROCHLORIDE   | 5,000 | 417 |
| U050                 | CHRYSENE  | 5,000 | 417 |
| U051                 | CREOSOTE  | 5,000 | 417 |
| U052                 | CRESOL (CRESYLIC ACID); Also known as PHENOL, METHYL-   | 5,000 | 417 |
| U053                 | CROTONALDEHYDE; Also known as 2-BUTENAL   | 5,000 | 417 |
| U055                 | CUMENE (I); Also known as BENZENE, (1-METHYLETHYL)- (I)   | 5,000 | 417 |
| U056                 | BENZENE, HEXAHYDRO- (I); Also known as CYCLOHEXANE (I)  | 5,000 | 417 |
| U057                 | CYCLOHEXANONE (I)   | 5,000 | 417 |
| U058                 | CYCLOPHOSPHAMIDE;<br>Also known as 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS<br>(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE   | 5,000 | 417 |
| U059                 | DAUNOMYCIN;<br>Also known as 5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-<br>2,3,6-TRIDEOXY)-ALPHS-L-LYXO- HEXOPYRANOSY)OXY]-7,8,9,10-<br>TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8S-CIS)- | 5,000 | 417 |
| U060                 | DDD; Also known as BENZENE,<br>1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO-   | 5,000 | 417 |
| U061                 | DDT; Also known as BENZENE,<br>1,1'-(2,2,2-TRICHLOROETHYLIDENT)BIS[4-CHLORO-  | 5,000 | 417 |
| U062                 | DIALATE; Also known as CARBAMOTHIOIC ACID,<br>BIS(1-METHYLETHYL)-, S-(2,3-DICHLORO-2-PROPENYL) ESTER  | 5,000 | 417 |
| U063                 | DIBENZ[A,H]ANTHRACENE   | 5,000 | 417 |
| U064                 | DIBENZO[A,I]PYRENE; Also known as BENZO[RST]PENTAPHENE  | 5,000 | 417 |
| U066                 | 1,2-DIBROMO-3-CHLOROPROPANE;<br>Also known as PROPANE, 1,2-DIBROMO-3-CHLORO-  | 5,000 | 417 |
| U067                 | ETHANE, 1,2-DIBROMO-; Also known as ETHYLENE DIBROMIDE  | 5,000 | 417 |
| U068                 | METHANE, DIBROMO-; Also known as METHYLENE BROMIDE  | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   |       | 0   |
|----------------------|---|-------|-----|
| U069                 | DIBUTYL PHTHALATE;<br>Also known as 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER                           | 5,000 | 417 |
| U070                 | o-DICHLOROBENZENE; Also known as BENZENE, 1,2-DICHLORO-   | 5,000 | 417 |
| U071                 | m-DICHLOROBENZENE; Also known as BENZENE, 1,3-DICHLORO-   | 5,000 | 417 |
| U072                 | p-DICHLOROBENZENE; Also known as BENZENE, 1,4-DICHLORO-   | 5,000 | 417 |
| U073                 | 3,3'-DICHLOROBENZIDINE;<br>Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'DICHLORO-                      | 5,000 | 417 |
| U074                 | 1,4-DICHLORO-2-BUTENE (I,T);<br>Also known as 2-BUTENE, 1,4-DICHLORO- (I,T)                               | 5,000 | 417 |
| U075                 | DICHLORODIFLUOROMETHANE;<br>Also known as METHANE, DICHLORODIFLUORO-                                      | 5,000 | 417 |
| U076                 | ETHANE, 1,1-DICHLORO-;<br>Also known as ETHYLIDENE DICHLORIDE   | 5,000 | 417 |
| U077                 | ETHANE, 1,2-DICHLORO-; Also known as ETHYLENE DIBROMIDE   | 5,000 | 417 |
| U078                 | 1,1-DICHLOROETHYLENE; Also known as ETHENE, 1,1-DICHLORO-   | 5,000 | 417 |
| U079                 | 1,2-DICHLOROETHYLENE;<br>Also known as ETHENE, 1,2-DICHLORO-, (E)   | 5,000 | 417 |
| U080                 | METHANE, DICHLORO-; Also known as METHYLENE CHLORIDE  | 5,000 | 417 |
| U081                 | 2,4-DICHLOROPHENOL; Also known as PHENOL, 2,4-DICHLORO-   | 5,000 | 417 |
| U082                 | 2,6-DICHLOROPHENOL; Also known as PHENOL, 2,6-DICHLORO-   | 5,000 | 417 |
| U083                 | PROPANE, 1,2-DICHLORO-;<br>Also known as PROPYLENE DICHLORIDE   | 5,000 | 417 |
| U084                 | 1,3-DICHLOROPROPENE;<br>Also known as 1-PROPENE, 1,3-DICHLORO-  | 5,000 | 417 |
| U085                 | 1,2:3,4--DIEPOXYBUTANE (I,T); Also known as 2,2'-BIOXIRANE  | 5,000 | 417 |
| U086                 | N,N'-DIETHYLHYDRAZINE;<br>Also known as HYDRAZINE, 1,2,-DIETHYL-  | 5,000 | 417 |
| U087                 | O,O-DIETHYL S-METHYL DITHIOPHOSPHATE; Also known as<br>PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-METHYL ESTER | 5,000 | 417 |
| U088                 | DIETHYL PHTHALATE;<br>Also known 1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER                              | 5,000 | 417 |
| U089                 | DIETHYLSTILBESTEROL; Also known as PHENOL,<br>4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS-, (E)                  | 5,000 | 417 |
| U090                 | DIHYDROSAFROLE; Also known as 1,3-BENZODIOXOLE, 5-PROPYL-   | 5,000 | 417 |
| U091                 | 3,3'-DIMETHOXYBENZIDINE;<br>Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'DIMETHOXY-                    | 5,000 | 417 |
| U092                 | DIMETHYLAMINE (I);<br>Also known as METHANAMINE, N-METHYL- (I)  | 5,000 | 417 |



| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   |       | 0   |
|----------------------|---|-------|-----|
| U093                 | BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)-;<br>Also known as P-DIMETHYLAMINOAZOBENZENE  | 5,000 | 417 |
| U094                 | BENZ[A]ANTHRACENE, 7,12-DIMETHYL-;<br>Also known as 7,12-DIMETHYLBENZ[A]ANTHRACENE  | 5,000 | 417 |
| U095                 | 3,3'-DIMETHYLBENZIDINE;<br>Also known as [1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'-DIMETHYL-   | 5,000 | 417 |
| U097                 | DIMETHYLCARBAMOYL CHLORIDE;<br>Also known as CARBAMIC CHLORIDE, DIMETHYL-   | 5,000 | 417 |
| U098                 | 1,1-DIMETHYLHYDRAZINE;<br>Also known as HYDRAZINE, 1,1-DIMETHYL-  | 5,000 | 417 |
| U099                 | 1,2-DIMETHYLHYDRAZINE;<br>Also known as HYDRAZINE, 1,2,-DIMETHYL-   | 5,000 | 417 |
| U101                 | 2,4-DIMETHYLPHENOL; Also known as PHENOL, 2,4-DIMETHYL-   | 5,000 | 417 |
| U102                 | DIMETHYL PHTHALATE; Also known as<br>1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER   | 5,000 | 417 |
| U103                 | DIMETHYL SULFATE;<br>Also known as SULFURIC ACID, DIMETHYL ESTER  | 5,000 | 417 |
| U105                 | 2,4-DINITROTOLUENE;<br>Also known as BENZENE, 1-METHYL-2,4-DINITRO-   | 5,000 | 417 |
| U106                 | 2,6-DINITROTOLUENE;<br>Also known as BENZENE, 2-METHYL-1,3-DINITRO-   | 5,000 | 417 |
| U107                 | DI-N-OCTYL PHTHALATE;<br>Also known as 1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER  | 5,000 | 417 |
| U108                 | 1,4-DIETHYLENEOXIDE; Also known as 1,4-DIOXANE  | 5,000 | 417 |
| U109                 | 1,2-DIPHENYLHYDRAZINE;<br>Also known as HYDRAZINE, 1,2-DIPHENYL-  | 5,000 | 417 |
| U110                 | DIPROPYLAMINE (I);<br>Also known as 1-PROPANAMINE, N-PROPYL- (I)  | 5,000 | 417 |
| U111                 | DI-N-PROPYLNITROSAMINE;<br>Also known as 1-PROPANAMINE, N-NITROSO-N-PROPYL-   | 5,000 | 417 |
| U112                 | ACETIC ACID ETHYL ESTER (I); Also known as ETHYL ACETATE (I)  | 5,000 | 417 |
| U113                 | ETHYL ACRYLATE (I);<br>Also known as 2-PROPENOIC ACID, ETHYL ESTER (I)  | 5,000 | 417 |
| U114                 | ETHYLENEBISDITHIOCARBAMIC ACID, SALTS & ESTERS;<br>Also known as CARBAMODITHIOIC ACID, 1,2- ETHANEDIYLBIS-,<br>SALTS & ESTERS | 5,000 | 417 |
| U115                 | ETHYLENE OXIDE (I,T); Also known as OXIRANE (I,T)   | 5,000 | 417 |
| U116                 | ETHYLENETHIOUREA; Also known as 2-IMIDAZOLIDINETHIONE   | 5,000 | 417 |
| U117                 | ETHANE, 1,1'-OXYBIS-(I); Also known as ETHYL ETHER (I)  | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  |       | 0   |
|----------------------|--|-------|-----|
| U118                 | ETHYL METHACRYLATE;<br>Also known as 2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER  | 5,000 | 417 |
| U119                 | ETHYL METHANESULFONATE;<br>Also known as METHANESULFONIC ACID, ETHYL ESTER   | 5,000 | 417 |
| U120                 | FLUORANTHENE   | 5,000 | 417 |
| U121                 | TRICHLOROMONOFUOROMETHANE;<br>Also known as METHANE, TRICHLOROFLURO-   | 5,000 | 417 |
| U122                 | FORMALDEHYDE   | 5,000 | 417 |
| U124                 | FURAN (I); Also known as FURFURAN (I)  | 5,000 | 417 |
| U125                 | 2-FURANCARBOXALDEHYDE (I); Also known as FURFURAL (I)  | 5,000 | 417 |
| U126                 | GLYCIDYLALDEHYDE;<br>Also known as OXIRANECARBOXYALDEHYDE  | 5,000 | 417 |
| U127                 | HEXACHLOROBENZENE; Also known as BENZENE, HEXACHLORO-  | 5,000 | 417 |
| U128                 | HEXACHLOROBUTADIENE;<br>Also known as 1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-   | 5,000 | 417 |
| U129                 | LINDANE;<br>Also known as CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-,<br>(1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)-  | 5,000 | 417 |
| U130                 | HEXACHLOROCYCLOPENTADIENE;<br>Also known 1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-  | 5,000 | 417 |
| U131                 | HEXACHLOROETHANE; Also known as ETHANE, HEXACHLORO-  | 5,000 | 417 |
| U132                 | HEXACHLOROPHENE;<br>Also known as PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-   | 5,000 | 417 |
| U135                 | HYDROGEN SULFIDE; Also known HYDROGEN SULFIDE H <sub>2</sub> S   | 5,000 | 417 |
| U136                 | ARSINIC ACID, DIMETHYL-; Also known as CACODYLIC ACID  | 5,000 | 417 |
| U137                 | INDENO[1,2,3-CD]PYRENE   | 5,000 | 417 |
| U138                 | METHANE, IODO-; Also known as METHYL IODIDE  | 5,000 | 417 |
| U140                 | ISOBUTYL ALCOHOL, (I,T);<br>Also known as 1-PROPANOL, 2-METHYL-, (I,T)   | 5,000 | 417 |
| U141                 | ISOSAFROLE;<br>Also known as 1,3-BENZODIOXOLE, 5-(1-PROPENYL)-   | 5,000 | 417 |
| U142                 | KEPONE;<br>Also known as 1,3,4-METHENO-2H-CYCLOBUTA[CD]PENTALEN-2-<br>ONE, 1,1A,3,3A,4,5,5A,5B,6- DECACHLOROOCCTAHYDRO-  | 5,000 | 417 |
| U143                 | LASIOCARPINE; Also known as 2-BUTENOIC ACID, 2-METHYL-,<br>7-[2,3-DIHYDROXY-2-(1-METHOXYETHYL)-3-METHYL-1-<br>OXOBUTOXY]METHYL]-2,3,5,6A-TETRAHYDRO-1H-PYRROLIZIN-1-<br>YL ESTER,[1S-1ALPHA(Z),7(2S*,3R*),7AALPHA]]- | 5,000 | 417 |
| U144                 | ACETIC ACID, LEAD(2+) SALT; Also known as LEAD ACETATE   | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION   |       | 0   |
|----------------------|---|-------|-----|
| U145                 | LEAD PHOSPHATE; PHOSPHORIC ACID, LEAD(2+) SALT (2:3)  | 5,000 | 417 |
| U146                 | LEAD, BIS(ACETATO-O) TETRAHYDROXYTRI-;<br>Also known as LEAD SUBACETATE                             | 5,000 | 417 |
| U147                 | MALEIC ANHYDRIDE; Also known as 2,5-FURANDIONE  | 5,000 | 417 |
| U148                 | MALEIC HYDRAZIDE;<br>Also known as 3,6-PYRIDAZINEDIONE, 1,2-DIHYDRO-                                | 5,000 | 417 |
| U149                 | MALONONITRILE; Also known as PROPANEDINITRILE   | 5,000 | 417 |
| U150                 | MELPHALAN; Also known as L-PHENYLALANINE,<br>4-[BIS(2-CHLOROETHYL)AMINO]-                           | 5,000 | 417 |
| U151                 | MERCYR  | 5,000 | 417 |
| U152                 | METHACRYLONITRILE (I,T);<br>Also known as 2-PROPENENITRILW, 2-METHYL- (I,T)                         | 5,000 | 417 |
| U153                 | METHANETHIOL (I,T); Also known as THIOMETHANOL (I,T)  | 5,000 | 417 |
| U154                 | METHANOL (I); Also known as METHYL ALCOHOL (I)  | 5,000 | 417 |
| U155                 | METHAPYRILENE; Also known 1,2-ETHANEDIAMINE,<br>N,N- DIMETHYL-N'-W-PYRIDINYL-N'-(2- THIENYLMETHYL)- | 5,000 | 417 |
| U156                 | METHYL CHLOROCARBONATE (I,T);<br>Also known CARBONOCHLORIDIC ACID, METHYL ESTER (I,T)               | 5,000 | 417 |
| U157                 | BENZ[1]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-;<br>Also known as 3-METHYLCHOLANTHRENE                  | 5,000 | 417 |
| U158                 | BENZENAMINE, 4,4'METHYLENEBIS[2-CHLORO-;<br>Also known as 4,4'-METHYLENEBIS(2-CHLOROANILINE)        | 5,000 | 417 |
| U159                 | METHYL ETHYL KETONE (MEK) (I,T);<br>Also known as 2-BUTANONE (I,T)                                  | 5,000 | 417 |
| U161                 | METHYL ISOBUTYL KETONE (I);<br>Also known as 4-METHYL-2-PENTANONE (I)<br>and PENTANOL, 4-METHYL-    | 5,000 | 417 |
| U162                 | METHYL METHACRYLATE (I,T); Also known as<br>2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T)         | 5,000 | 417 |
| U163                 | MNNG;<br>Also known as GUANIDINE, N-METHYL-N'-NITRO-N- NITROSO-                                     | 5,000 | 417 |
| U164                 | METHYLTHIOURACIL; Also known as 4(1H)-PYRIMIDINONE,<br>2,3-DIHYDRO-6-METHYL-2-THIOXO-               | 5,000 | 417 |
| U165                 | NAPHTHALENE   | 5,000 | 417 |
| U166                 | 1,4-NAPHTHALENEDIONE; Also known as 1,4-NAPHTHOQUINONE  | 5,000 | 417 |
| U167                 | 1-NAPHTHALENAMINE; Also known as ALPHA-NAPHTHYLAMINE  | 5,000 | 417 |
| U168                 | 2-NAPHTHALENAMINE; Also known as BETA-NAPHTHYLAMINE   | 5,000 | 417 |
| U169                 | NITROBENZENE (I,T); Also known as BENZENE, NITRO-   | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  |       | 0   |
|----------------------|--|-------|-----|
| U170                 | P-NITROPHENOL; Also known as PHENOL, 4-NITRO   | 5,000 | 417 |
| U171                 | 2-NITROPROPANE (I,T); Also known as PROPANE, 2-NITRO (I,T)                             | 5,000 | 417 |
| U172                 | N-NITROSODI-N-BUTYLAMINE;<br>Also known as 1-BUTANAMINE, N-BUTYL-N-NITROSO-            | 5,000 | 417 |
| U173                 | N-NITROSODIETHANOLAMINE;<br>Also known as ETHANOL, 2,2'-(NITROSOIMINO)BIS-             | 5,000 | 417 |
| U174                 | N-NITROSODIETHYLAMINE;<br>Also known as ETHANAMINE, N-ETHYL-N-NITROSO-                 | 5,000 | 417 |
| U176                 | N-NITROSO-N-ETHYLUREA;<br>Also known as UREA, N-ETHYL-N-NITROSO-                       | 5,000 | 417 |
| U177                 | N-NITROSO-N-METHYLUREA;<br>Also known as UREA, N-METHYL-N-NITROSO-                     | 5,000 | 417 |
| U178                 | N-NITROSO-N-METHYLURETHANE;<br>Also known as CARBAMIC ACID, METHYLNITROSO-,ETHYL ESTER | 5,000 | 417 |
| U179                 | N-NITROSOPIPERIDINE; Also known as PIPERIDINE, 1-NITROSO-                              | 5,000 | 417 |
| U180                 | N-NITROSOPYRROLIDINE;<br>Also known as PYRROLIDINE, 1-NITROSO-                         | 5,000 | 417 |
| U181                 | BENZENAMINE, 2-METHYL-5-NITRO-;<br>Also known as 5-NITRO-O-TOLUIDINE                   | 5,000 | 417 |
| U182                 | PARALDEHYDE;<br>Also known as 1,3,5-TRIOXANE, 2,4,6- TRIMETHYL-                        | 5,000 | 417 |
| U183                 | PENTACHLOROBENZENE;<br>Also known as BENZENE, PENTACHLORO-                             | 5,000 | 417 |
| U184                 | PENTACHLOROETHANE; Also known as ETHANE, PENTACHLORO-                                  | 5,000 | 417 |
| U185                 | PENTACHLORONITROBENZENE (PCNB);<br>Also known as BENZENE, PENTACHLORONITRO-            | 5,000 | 417 |
| U186                 | 1,3-PENTADIENE (I); Also known as 1-METHYLBUTADIENE (I)                                | 5,000 | 417 |
| U187                 | ACETAMIDE, N-(4-ETHOXYPHENYL)-; Also known as PHENACETIN                               | 5,000 | 417 |
| U188                 | PHENOL   | 5,000 | 417 |
| U190                 | PHTHALIC ANHYDRIDE; Also known as 1,3-ISOBENZOFURANDIONE                               | 5,000 | 417 |
| U191                 | 2-PICOLINE; Also known as PYRIDINE, 2-METHYL-  | 5,000 | 417 |
| U192                 | BENZAMIDE,3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)-;<br>Also known as PRONAMIDE        | 5,000 | 417 |
| U193                 | 1,3-PROPANE SULTONE;<br>Also known as 1,2-OXATHIOLANE, 2,2-DIOXIDE                     | 5,000 | 417 |
| U194                 | 1-PROPANAMINE (I,T); Also known as N-PROPYLAMINE (I,T)                                 | 5,000 | 417 |
| U196                 | PYRIDINE   | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  |       | 0   |
|----------------------|--|-------|-----|
| U197                 | P-BENZOQUINONE;<br>Also known as 2,5-CYCLOHEXADIENE-1,4-DIONE  | 5,000 | 417 |
| U200                 | RESERPINE; Also known as YOHIMBAN-16-CARBOXYLIC ACID,<br>11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-,<br>METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)- | 5,000 | 417 |
| U201                 | RESORCINOL; Also known as 1,3-BENZENEDIOL  | 5,000 | 417 |
| U202                 | SACCHARIN, & SALTS; Also known as 1,2-BENZISOTHAZOL-3(2H)-<br>ONE, 1,1-DIOXIDE, & SALTS  | 5,000 | 417 |
| U203                 | SAFROLE; Also known as 1,3-BENZODIOXOLE, 5-(2- PROPENYL)-  | 5,000 | 417 |
| U204                 | SELENIOUS ACID; Also known as SELENIUM DIOXIDE   | 5,000 | 417 |
| U206                 | STREPTOZOTOCIN; Also known as GLUCOPYRANOSE, 2-DEOXY-2-<br>(3-METHYL-3-NITROSOUREIDO)-, D-D-GLUCOSE, 2-DEOXY-2-<br>[(METHYLNITROSOAMINO)-CARBONYL]AMINO]-                | 5,000 | 417 |
| U207                 | 1,2,4,5-TETRACHLOROBENZENE;<br>Also known as BENZENE, 1,2,4,5-TETRACHLORO-   | 5,000 | 417 |
| U208                 | 1,1,1,2-TETRACHLOROETHANE;<br>Also known as ETHANE, 1,1,1,2-TETRACHLORO-   | 5,000 | 417 |
| U209                 | 1,1,2,2-TETRACHLOROETHANE;<br>Also known as ETHANE, 1,1,2,2-TETRACHLORO-   | 5,000 | 417 |
| U210                 | TETRACHLOROETHYLENE;<br>Also known as ETHENE, TETRACHLORO-   | 5,000 | 417 |
| U211                 | CARBON TETRACHLORIDE;<br>Also known as METHANE, TETRACHLORO-   | 5,000 | 417 |
| U213                 | TETRAHYDROFURAN (I); Also known as FURAN, TETRAHYDRO-(I)   | 5,000 | 417 |
| U214                 | ACETIC ACID, THALLIUM(1+) SALT;<br>Also known as THALLIUM(I) ACETATE   | 5,000 | 417 |
| U215                 | THALLIUM(I) CARBONATE;<br>Also known as CARBONIC ACID, DITHALLIUM(1+) SALT   | 5,000 | 417 |
| U216                 | THALLIUM(I) CHLORIDE;<br>Also known as THALLIUM CHLORIDE TLCL  | 5,000 | 417 |
| U217                 | THALLIUM(I) NITRATE;<br>Also known as NITRIC ACID, THALLIUM(1+) SALT   | 5,000 | 417 |
| U218                 | THIOACETAMIDE; Also known as ETHANETHIOAMIDE   | 5,000 | 417 |
| U219                 | THIOUREA   | 5,000 | 417 |
| U220                 | TOLUENE; Also known as BENZENE, METHYL-  | 5,000 | 417 |
| U221                 | TOLUENEDIAMINE;<br>Also known as BENZENEDIAMINE, AR-METHYL-  | 5,000 | 417 |
| U222                 | BENZENAMINE, 2-METHYL-,<br>Also known as HYDROCHLORIDE O-TOLUIDINE HYDROCHLORIDE   | 5,000 | 417 |

| EPA<br>WASTE<br>CODE | WASTE DESCRIPTION  |       | 0   |
|----------------------|--|-------|-----|
| U225                 | BROMOFORM; Also known as METHANE, TRIBROMO-  | 5,000 | 417 |
| U226                 | ETHANE, 1,1,1-TRICHLORO-;<br>Also known as METHYL CHLOROFORM   | 5,000 | 417 |
| U227                 | 1,1,2-TRICHLOROETHANE;<br>Also known as ETHANE, 1,1,2-TRICHLORO-   | 5,000 | 417 |
| U228                 | TRICHLOROETHYLENE; Also known as ETHENE, TRICHLORO-  | 5,000 | 417 |
| U235                 | TRIS(2,3-DIBROMOPROPYL) PHOSPHATE;<br>Also known as 1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE (3:1)  | 5,000 | 417 |
| U236                 | TRYPAN BLUE; Also known as 2,7-NAPHTHALENEDISULFONIC<br>ACID, 3,3'-[(3,3'-DIMETHYL[1,1'-BIPHENYL]-4,4'-<br>DIYL)BIS(AZO)BIS[5-AMINO-4-HYDROXY]-, TETRASODIUM SALT  | 5,000 | 417 |
| U237                 | URACIL MUSTARD; Also known as 2,4-(1H,3H)-PYRIMIDINEDIONE,<br>5-[BIS(2-CHLOROETHYL)AMINO]-   | 5,000 | 417 |
| U238                 | CARBAMIC ACID, ETHYL ESTER;<br>Also known as ETHYL CARBAMATE (URETHANE)  | 5,000 | 417 |
| U239                 | XYLENE (I); Also known as BENZENE, DIMETHYL- (I,T)   | 5,000 | 417 |
| U240                 | ACETIC ACID, 92,4-DICHLOROPHENOXY)-, SALTS & ESTERS;<br>Also known as 2,4-D, SALTS & ESTERS  | 5,000 | 417 |
| U243                 | HEXACHLOROPROPENE;<br>Also known as 1-PROPENE, 1,1,2,3,3,3- HEXACHLORO-  | 5,000 | 417 |
| U244                 | THIOPEROXYDICARBONIC DIAMIDE [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> ,<br>TETRAMETHYL-; Also known as THIRAM  | 5,000 | 417 |
| U246                 | CYANOGEN BROMIDE (CN)Br  | 5,000 | 417 |
| U247                 | BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-METHOXY-;<br>Also known as METHOXYCHLOR   | 5,000 | 417 |
| U248                 | WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF<br>0.3% OR LESS; Also known as 2H-1-BENZOPYRAN-2-ONE, 4-<br>HYDROXY-3-(3-OXO-1-PHENYL-BUTYL)-, & SALTS, WHEN<br>PRESENT AT CONCENTRATIONS OF 0.3% OR LESS | 5,000 | 417 |
| U249                 | ZINC PHOSPHIDE Zn <sub>3</sub> P <sub>2</sub> WHEN PRESENT AT CONCENTRATIONS<br>OF 10% OR LESS   | 5,000 | 417 |
| U328                 | BENZENAMINE, 2-METHYL-; Also known as o-TOLUIDINE  | 5,000 | 417 |
| U353                 | BENZENAMINE, 4-METHYL-; Also known as p-TOLUIDINE  | 5,000 | 417 |
| U359                 | ETHANOL, 2-ETHOXY-;<br>Also known as ETHYLENE GLYCOL MONOETHYL ETHER   | 5,000 | 417 |

Westates Carbon—Arizona, Inc.  
P.O. Box E \* Parker, Arizona 85344 \* (602)—669—5758  
SPENT CARBON PROFILE FORM

For Office Use Only

Territory

Approval No.

Valid Through

A. GENERATOR INFORMATION

1. GENERATOR: \_\_\_\_\_
2. U.S. EPA ID NO.: \_\_\_\_\_ 3. STATE ID NO.: \_\_\_\_\_
4. GENERATOR MAILING ADDRESS: \_\_\_\_\_
5. GENERATOR MAILING CONTACT: \_\_\_\_\_ 6. TITLE: \_\_\_\_\_ 7. PHONE: \_\_\_\_\_
8. GENERATOR SITE ADDRESS: \_\_\_\_\_
9. GENERATOR SITE CONTACT: \_\_\_\_\_ 10. TITLE: \_\_\_\_\_ 11. PHONE: \_\_\_\_\_
12. CONSULTING FIRM & ADDRESS: \_\_\_\_\_
13. CONSULTING FIRM CONTACT: \_\_\_\_\_ 14. TITLE: \_\_\_\_\_ 15. PHONE: \_\_\_\_\_

B. PROPERTIES AND COMPOSITION

1. PROCESS GENERATING WASTE: \_\_\_\_\_
2. TYPE OF CARBON: ☐ Aqua ☐ Vapor ☐ Pelletized ☐ Impregnated 3. MESH SIZE: \_\_\_\_\_
4. CHEMICAL COMPOSITION: Below, list all constituents (including halogenated organics) present in any concentration.  

| CONSTITUENT | RANGE | UNIT/PPM | CONSTITUENT | RANGE | UNIT/PPM |
|-------------|-------|----------|-------------|-------|----------|
|             |       |          |             |       |          |
|             |       |          |             |       |          |
|             |       |          |             |       |          |
5. INDICATE IF ANALYSIS IS FROM: ☐ Influent Stream ☐ Spent Carbon
6. INDICATE IF SAMPLE WAS TAKEN: ☐ Yes ☐ No 7. IF YES, ATTACH CLAIM OF CUSTODY.
8. FREE LIQUID RANGE: \_\_\_\_\_ TO \_\_\_\_\_ OR ☐ NOT APPLICABLE. 9. STRONG ODOR: ☐ NO ☐ YES  
DESCRIBE ODOR: \_\_\_\_\_
10. pH RANGE: \_\_\_\_\_ TO \_\_\_\_\_ OR ☐ NOT APPLICABLE 11. IGNITABLE: ☐ NO ☐ YES FLASHPOINT: \_\_\_\_\_
12. FOREIGN MATERIAL: ☐ NO ☐ YES DESCRIBE: \_\_\_\_\_
13. OTHER: PCB'S ☐ NO ☐ YES IF YES, CONCENTRATION: \_\_\_\_\_ PPM ☐ PCB'S REGULATED BY 40 CFR 761  
☐ PYROPHONIC ☐ EXPLOSIVE ☐ RADIOACTIVE ☐ SHOCK SENSITIVE ☐ OXIDIZER ☐ CARCINOGEN  
☐ INFECTIOUS ☐ OTHER: \_\_\_\_\_

C. CLASSIFICATION

1. Is this a U.S. EPA Hazardous Waste? ☐ NO ☐ YES If no, attach documentation.
2. Identify all U.S. EPA listed and characteristic waste codes (D,F,K,P,U): \_\_\_\_\_
3. Is this a State Hazardous Waste? ☐ NO ☐ YES 4. Identify all State Waste Codes: \_\_\_\_\_
5. Is this a waste subject to the Land Ban? ☐ NO ☐ YES If yes, complete attached WCAI Land Ban Restriction Notice

D. SHIPPING INFORMATION

1. Packaging: ☐ DRUM ☐ BAG ☐ ROLL-OFF ☐ SLURRY ☐ HP OTHER: \_\_\_\_\_
2. Anticipated Annual Volume: \_\_\_\_\_ 3. Shipping Frequency: \_\_\_\_\_

F. GENERATOR'S CERTIFICATION

I hereby certify that all information in this and all attached documents contains true and accurate descriptions of this waste. Any analysis submitted is hereby representative as defined in 40 CFR 261 — Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize Westates Carbon—Arizona to obtain a sample from any waste shipment for purposes of recertification.

SIGNATURE

PRINTED NAME AND TITLE

DATE

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

Return this completed Profile Form to:

Your Regional Inside Salesperson

**General Instructions**

1. The Westates Carbon-Arizona, Inc. (WCAI) Spent Carbon Profile Form must be completed and/or reviewed by the actual generator.
2. Each question must be answered.
3. Each answer must be legible and printed in ink or typed.
4. Instructions are included to help you complete these forms correctly. The numbers and letters which precede each instruction refer to the numbered and lettered entries on the forms.
5. The WCAI Spent Carbon Profile Form must be signed by the actual waste generator or an agent authorized in writing by the generator.
6. If you have any questions concerning the use of this form, please contact the environmental coordinator located at our Parker facility, or your sales representative.
7. Make a copy of these forms for your records. Send the original and all attachments to the address shown above.



**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

**Specific Instructions**

This information is required for a spent carbon to be considered for transportation, storage, or reactivation. It is used to determine if the spent carbon may be transported, stored, and reactivated in a legal, safe and environmentally sound manner. Answers must be made to all questions and must be printed in ink or typed.

**A. *Generator Information***

1. Generator Name - Enter the name of the generating entity. (This name is to be the same as the one which will appear at Item "3" on the Hazardous Waste Manifest).
2. Generator USEPA ID - Enter the twelve character alpha-numeric descriptor issued by the USEPA to the facility generating the spent carbon. *Note:* A generator of non-hazardous spent carbon should write "N/A". (Item "1" on the Hazardous Waste Manifest.)
3. State ID - Enter State ID number if a state in which the spent carbon is generated has assigned an ID number different than the USEPA ID number.
4. Generator Mailing Address - Enter the mailing address of the generating entity. (This address is to be the same as the one which will appear at Item "3" on the Hazardous Waste Manifest.)
5. Generator Mailing Contact - Enter the name of a specific person authorized to respond to correspondence regarding the generating entity.
6. Title - Enter the official title of the person named in item 5.
7. Phone - Enter the area code and telephone number of the person named in item 5.
8. Generator Site Address - Enter the street address of the facility at which the spent carbon was generated (not a P.O. Box).
9. Generating Site Contact - Enter the name of a specific person who can coordinate pick-up or service of the spent carbon at the generating site.
10. Title - Enter the official title of the person named in item 9.
11. Phone - Enter the area code and telephone number of the person named in item 9.

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

12. Consulting Firm & Address - Enter the name and address of the generator's consulting firm responsible for the site named in Item "8".
13. Consulting Firm Contact - Enter the name of a specific person who will answer specific technical questions about the waste.
14. Title - Enter the official title of the person named in item 13.
15. Phone - Enter the area code and telephone number of the person named in item 13.

**B. *Properties and Composition***

1. Process Generating Waste - List the specific process/operation or source that generates the spent carbon (e.g., wastewater treatment, paint spray booth, spill cleanup, groundwater remediation). Be specific and descriptive. If the spent carbon is generated from a CERCLA cleanup, indicate the name of the site and attach the CERCLA 104/106 order, Record of Decision or court order that governs the site cleanup activities.
2. Type of Carbon - Check only one type. Identification of which type can be made as follows: If your waste stream is water the type would be *liquid*, if the waste stream is air the type would be *vapor*. Pelletized carbon comes in *pelletized* form. *Impregnated* carbon comes in either pelletized or granular form and can be determined by high pH range or by its use (e.g., sulfide removal). *Mix* indicates a combination of more than one of the other forms. Your sales representative can further assist you.
3. Mesh Size - Following are examples of typical carbon mesh sizes: Liquid = 8 X 30; Vapor = 4 X 8; Pelletized = 4mm; Impregnated = 4 X 8 or 4mm.
4. Chemical Composition - For liquid phase spent carbon you must obtain an analysis of the waste stream being treated by the subject activated carbon or obtain and analyze the spent carbon. For vapor phase carbon, you may obtain an analysis of the vapor flow to the spent carbon or obtain an analysis of the spent carbon, or list the components of the waste stream treated by the carbon. You may keep trade names for chemical components if you attach Material Safety Data Sheets for all trade name components. In the space provided, list all organic and/or inorganic components of the waste, using specific chemical names. For each component, indicate the approximate concentration (ranges are acceptable) in parts per million (ppm) or percent in which the component is present. This list must include all components of the waste. ***The total of the maximum values of the components must be greater than or equal to 100%, including water, spent carbon (if carbon is analyzed), and/or specific organic compounds.***

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

5. Indicate if analysis is of the components of the influent stream or if it is of the components of the spent carbon.
6. Indicate if the analysis report is attached.
7. Free Liquid Range - If the spent carbon contains both solid and liquid phases, indicate the free liquid content or range in percent.
8. Strong Odor - ***DO NOT SMELL THE WASTE.*** If the waste has a known incidental odor, then describe it (e.g., acrid, pungent, solvent, sweet).
9. pH Range - Indicate either the actual pH or range of pH for free liquids associated with the spent carbon. As an alternative, for spent carbon from aqueous service, indicate the pH of the influent waste to the carbon. If there are no free liquids in the spent carbon mark "Not Applicable".
10. Indicate whether the spent carbon is ignitable per Title 40 of the Code of Federal Regulations (CFR) Part 261 [See (A) below]. Indicate the flash point of any free liquid associated with the carbon or indicate whether the spent carbon is an ignitable solid. *Note:* The liquid flash point is important from a transportation standpoint. Solids with flammable potential should be identified in Section 12 (Pyrophoric, Oxidizer, Other).
  - (A) Per 40 CFR 261.21, a solid waste exhibits the characteristic of ignitability if the waste has any of the following properties:
    1. It is a liquid other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60°C (140°F).
    2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
    3. It is an oxidizer as defined in 49 CFR 173.151. The definition of "oxidizer" previously found at 49 CFR 173.151 is now found in section 173.127. According to this text, an oxidizer is a material that may, generally by yielding oxygen, cause or enhance the combustion of other materials.

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

11. Foreign Material - Indicate whether the spent carbon has any foreign material such as rocks, debris, and other wastes included. *Note:* The presence of foreign material may render the spent carbon ineligible for reactivation by Westates and could result in rejection of the waste.

12. Other - Check each box, as applicable.

PCB's - Indicate if the waste contains Polychlorinated Biphenyls (PCB's). If yes, indicate the concentration of PCB's in parts per million.

PCB's Regulated by 40 CFR 761 - If the waste contains greater than 50 ppm (per 40 CFR 761) check this box.

Pyrophoric - Indicate if the waste will ignite spontaneously in air at or below 130°F (54.5°C). [29 CFR 1900.1200 and 49 CFR 174.124]

Explosive - Indicate if the waste is classified under any of the three divisions listed below (per 49 CFR 173.50):

| Division | Description   |
|----------|---|
| 1.1      | Explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load instantaneously.                 |
| 1.2      | Explosives that have a projection hazard but not a mass explosion hazard.   |
| 1.3      | Explosives that have a fire hazard and either a minor blast hazard or a minor projection hazard, or both - but not a mass explosion hazard. |

Radioactive - Indicate if the waste contains radioactive material as defined in 42 USCA 2014(e) and 10 CFR 20.1103. These definitions identify radioactive material as any radioactive material (except special nuclear material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing special nuclear material.

Shock Sensitive - Indicate if the waste is normally unstable and readily undergoes violent change without detonating.

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

Oxidizer - Indicate if the waste is a material that may, generally by yielding oxygen, cause or enhance the combustion of other materials. (49 CFR 173.127).

Carcinogen - Identify any known carcinogens that are present in concentrations above 0.1 percent. List each known carcinogen and its concentration in the Chemical Composition section above. The Occupational Safety Health Act (OSHA) Hazardous Communication Standard [29 CFR 1910.1200 d(4)] list the following sources for identifying carcinogens:

- (1) National Toxicology Program (NTP), Annual Report on Carcinogens (latest edition);
- (2) International Agency for Research on Cancer (IARC) Monographs (latest editions); or
- (3) 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

*NOTE: The Registry of Toxic Effects of Chemical Substances published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.*

Infectious - Indicate if the waste was generated in connection with patient care or medical research or if it may be contaminated with pathogenic agents capable of inducing infection and which has not been rendered harmless by sterilization or other methods.

Other - Indicate other hazardous characteristics as appropriate (e.g., autopolymerization, peroxide-forming, etc.). For guidance, refer to the Material Safety Data Sheet(s) for waste stream constituents.

**C. Classification**

1. U.S. EPA Hazardous Waste - Indicate if this spent carbon is U.S. EPA Hazardous Waste (40 CFR 261).
2. U.S. EPA Waste Numbers - If the spent carbon is U.S. EPA Hazardous, identify *all* U.S. EPA waste numbers that apply. (40 CFR 261.21-24 and 261.31-33)
3. State Hazardous Waste - Indicate whether this spent carbon is a State Hazardous Waste.
4. State Waste Codes - If the state in which the spent carbon is generated has issued specific waste codes, other than RCRA codes, identify all state waste codes.

**WESTATES CARBON, INC.**  
**PARKER REACTIVATION FACILITY**  
*Spent Carbon Profile Sheet*

5. Land Disposal Restrictions - If the waste is subject to land disposal restrictions (40 CFR 268), please check the box and complete the Westates Carbon Land Ban Notification Form. Include the completed form with this Spent Carbon Profile Sheet.

**D. *Shipping Information***

1. Packaging - Indicate the anticipated method(s) of shipment by checking the appropriate box(es). If drums are to be used, see 49 CFR 173 for DOT drum specifications. If you are not sure of the packaging method or specification, check with your Westates Carbon sales representative.
2. Anticipated Waste Volume - Enter the amount of the spent carbon which will be generated and transported annually. Use appropriate units to describe the volume (e.g., cubic feet, pounds, kilograms).
3. Shipping Frequency - Enter the frequency with which the spent carbon will be shipped (e.g., weekly, monthly, quarterly).

**E. *Notes***

Enter any additional information or comments that may assist WCI personnel in evaluating the spent carbon for its transportation, composition, or reactivation.

**F. *Generator's Certification***

An authorized employee or agent (authorized in writing) of the generator must sign and date this certification on the completed Spent Carbon Profile Form. The printed name and title of this agent must be included on the certification. When an agent signs the Westates Carbon profile for the generator, please submit written documentation demonstrating that the generator has authorized the agent to sign the certification section of the profile.

Make a copy of this Spent Carbon Profile Form for your records. Send the original and attachments to: Westates Carbon, Inc. 2523 Mutahar Street, Parker, Arizona 85344.

**APPENDIX C**  
**INCOMING WASTE TALLY SHEET**

Westates Carbon-Arizona, Inc.

**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: \_\_\_\_\_ Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_

Approval Number: \_\_\_\_\_ Arrival Time: \_\_\_\_\_

Manifest Number: \_\_\_\_\_ Page: \_\_\_\_ of \_\_\_\_

[illegible]



**APPENDIX D**

**WASTE SCREENING REPORT**

Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Received: \_\_\_\_/\_\_\_\_/\_\_\_\_

Page Number: \_\_\_\_ of \_\_\_\_

1. GENERATOR INFORMATION

A. Generator: \_\_\_\_\_ B. Approval Number: \_\_\_\_\_  
C. Street: \_\_\_\_\_ D. City: \_\_\_\_\_ E. State: \_\_\_\_\_ F. Zip: \_\_\_\_\_  
G. Contact: \_\_\_\_\_ H. Telephone number: \_\_\_\_\_

2. BILL OF LADING OR MANIFEST NUMBER

A. DOT description: \_\_\_\_\_  
B. Total containers received: \_\_\_\_\_ BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: \_\_\_\_\_ B. Samples taken by: \_\_\_\_\_

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph | Ignitability | Visual Particle Size | Hardness | Appearance |
|---------------|--------------------|----------------|----|--------------|----------------------|----------|------------|
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |
|               |                    |                |    |              |                      |          |            |

4. COMMENTS

\_\_\_\_\_  
\_\_\_\_\_

WCAI Technician who performed this analysis: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**APPENDIX E**  
**RANDOM NUMBER TABLE**

# APPENDIX E

Random Number Table (1)

| Day of Month   | Random Numbers Applicable |       |       |       |       |       |       |       |       |       |
|--|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 01   | 37542                     | 05805 | 64894 | 74296 | 24805 | 24037 | 20636 | 10402 | 00822 | 91665 |
| 02   | 08422                     | 68953 | 19645 | 09303 | 23209 | 02560 | 15953 | 34764 | 65080 | 33606 |
| 03   | 99019                     | 02529 | 09376 | 70715 | 38311 | 31165 | 88676 | 74397 | 04436 | 27659 |
| 04   | 12807                     | 99970 | 80157 | 36147 | 64032 | 36653 | 98951 | 16877 | 12171 | 76833 |
| 05   | 66065                     | 74717 | 34072 | 76850 | 36697 | 36170 | 65813 | 39885 | 11199 | 29170 |
| 06   | 31060                     | 10805 | 45571 | 82406 | 35303 | 42614 | 86799 | 07439 | 23403 | 09732 |
| 07   | 85269                     | 11602 | 02051 | 65692 | 68665 | 74818 | 73053 | 85247 | 18623 | 88579 |
| 08   | 63573                     | 32135 | 05325 | 47048 | 90553 | 57545 | 28468 | 28709 | 83491 | 25624 |
| 09   | 73796                     | 45753 | 03529 | 64778 | 35808 | 34282 | 60935 | 20344 | 35273 | 88435 |
| 10   | 98520                     | 17767 | 14905 | 68607 | 22109 | 40558 | 60970 | 93433 | 50500 | 73998 |
| 11   | 11805                     | 05431 | 39808 | 27732 | 50725 | 68248 | 29405 | 24201 | 52775 | 67851 |
| 12   | 83452                     | 99634 | 06288 | 98033 | 13746 | 70078 | 18745 | 40610 | 68711 | 77817 |
| 13   | 88685                     | 40200 | 86507 | 58401 | 36766 | 67951 | 90364 | 76493 | 29609 | 11062 |
| 14   | 99594                     | 67348 | 87517 | 64969 | 91826 | 08928 | 93785 | 61368 | 23478 | 34113 |
| 15   | 65481                     | 17674 | 17468 | 50950 | 58047 | 76974 | 73039 | 57186 | 40218 | 16544 |
| 16   | 80124                     | 35635 | 17727 | 08015 | 45318 | 22374 | 21115 | 78253 | 14385 | 53763 |
| 17   | 74350                     | 99817 | 77402 | 77214 | 43236 | 00210 | 45521 | 64237 | 96286 | 02655 |
| 18   | 69916                     | 26803 | 66252 | 29148 | 36936 | 87203 | 76621 | 13990 | 94400 | 56418 |
| 19   | 09893                     | 20505 | 14225 | 68514 | 46427 | 56788 | 96297 | 78822 | 54382 | 14598 |
| 20   | 91499                     | 14523 | 68479 | 27686 | 46162 | 83544 | 94750 | 89923 | 37089 | 20048 |
| 21   | 80336                     | 94598 | 26940 | 36858 | 70297 | 34135 | 53140 | 33340 | 42050 | 82341 |
| 22   | 44104                     | 81949 | 85157 | 47943 | 32979 | 26575 | 57600 | 40881 | 22222 | 06413 |
| 23   | 12550                     | 73742 | 11100 | 02040 | 12860 | 74697 | 96644 | 89439 | 28707 | 25815 |
| 24   | 63606                     | 49239 | 16505 | 34484 | 20219 | 52563 | 43651 | 77082 | 07207 | 31790 |
| 25   | 61196                     | 90446 | 26457 | 47774 | 51924 | 33729 | 65394 | 59593 | 42582 | 60527 |
| 26   | 15474                     | 45266 | 95270 | 79953 | 59367 | 83848 | 82396 | 10118 | 33211 | 59466 |
| 27   | 94557                     | 28573 | 67897 | 54387 | 54622 | 44431 | 91190 | 42592 | 92927 | 45973 |
| 28   | 42481                     | 16213 | 97344 | 08721 | 16868 | 48767 | 03071 | 12059 | 25701 | 46670 |
| 29   | 23523                     | 78317 | 73208 | 89837 | 68935 | 91416 | 26252 | 29663 | 05522 | 82562 |
| 30   | 04493                     | 52494 | 75246 | 33824 | 45862 | 51025 | 61962 | 79335 | 65337 | 12472 |
| 31   | 00549                     | 97654 | 64051 | 88159 | 96119 | 63896 | 54692 | 82391 | 23287 | 29529 |
| (1) Excerpted from: Haber A., and Runyon R., General Statistics, Third Edition, Addison-Wesley Publishing Co., Menlo Park, CA, 1977. |                           |       |       |       |       |       |       |       |       |       |

**APPENDIX F**

**LAND DISPOSAL RESTRICTION  
NOTIFICATION FORM**

# LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

Generator Name: \_\_\_\_\_

WCI Profile No.: \_\_\_\_\_

State Manifest No. \_\_\_\_\_

1. Is this waste a (or is it generated by a) nonwastewater or a wastewater? ☐ Nonwastewater ☐ Wastewater
2. If this waste is subject to any California List restrictions, place a check next to each restriction that is applicable:  
☐ HOCs. ☐ PCBs. ☐ Acid. ☐ Metals. ☐ Cyanides.
3. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code identify the corresponding subdivision, or check none if the waste code has no subdivision. Also check which treatment standards apply. See attached instructions.

| R<br>E<br>F | 4. US EPA<br>HAZARDOUS<br>WASTE<br>CODE(S) | 5. SUBDIVISION   |      | 6. APPLICABLE<br>TREATMENT STANDARDS |         |   | 7. HOW<br>MUST THE<br>WASTE BE<br>MANAGED?<br>(Enter the letter<br>from below) |
|-------------|--|--|------|--------------------------------------|---------|---|--|
|             |  | Enter the Subdivision Description - If<br>not applicable simply check NONE |      | 6A. PERFORMANCE-<br>BASED            |         | 6.B. SPECIFIED TECHNOLOGY<br>(If applicable enter the 40 CFR 268.42 -<br>Table 1 Treatment Codes) |  |
|             |  | DESCRIPTION  | NONE | 268.41a                              | 268.43a | 268.42a   |  |
| 1           |  |  |      |                                      |         |   |  |
| 2           |  |  |      |                                      |         |   |  |
| 3           |  |  |      |                                      |         |   |  |
| 4           |  |  |      |                                      |         |   |  |
| 5           |  |  |      |                                      |         |   |  |
| 6           |  |  |      |                                      |         |   |  |
| 7           |  |  |      |                                      |         |   |  |
| 8           |  |  |      |                                      |         |   |  |
| 9           |  |  |      |                                      |         |   |  |
| 10          |  |  |      |                                      |         |   |  |

To list additional USEPA code(s) and subcategory(s), copy this sheet and check here: \_\_\_\_\_

Notes:

**HOW MUST THE WASTE BE MANAGED?** In column 7 above, enter the letter (A, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter D, you are making the appropriate certification as provided below.

**A. RESTRICTED WASTE REQUIRES TREATMENT**

This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, 268.32, or RCRA Section 3004(d).

**D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT**

"I have determined that this waste meets all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and therefore, can be land disposed without further treatment. A copy of all applicable treatment standards and specified treatment methods is maintained at the treatment, storage, and disposal facility named above. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and all applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."

**E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS**

This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature \_\_\_\_\_ Date: \_\_\_\_\_

Title \_\_\_\_\_

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION   | APPLICABLE TREATMENT STANDARDS |             |                               |
|-----------------------------------|---|--|--------------------------------|-------------|-------------------------------|
|                                   |   |  | 268.41(a)                      | 268.43(a)   | SPECIFIED<br>TECHNOLOGY       |
| D001                              | WW  | Ignitable Liquids  |                                |             | DEACT                         |
|                                   | NW  | Low TOC Ignitable Liquids  |                                |             | DEACT                         |
|                                   |   | Subcategory -- Less than 10%<br>Total Organic Carbon High TOC                            |                                |             |                               |
|                                   |   | Ignitable Liquids Subcategory --<br>Greater than or Equal to 10%<br>Total Organic Carbon |                                |             | FUSUBS;<br>RORGs; OR<br>INCIN |
| D004                              | NW  |  | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D005                              | NW  |  | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D006                              | NW  |  | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D007                              | NW  |  | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D008                              | NW  | Lead Acid Batteries  | X                              |             | RLEAD                         |
|                                   | WW  |  |                                | X           |                               |
| D009                              | NW  | Low Mercury Subcategory --<br>Less than 260 mg/kg Mercury                                | X                              |             |                               |
|                                   |   | High Mercury Subcategory --<br>Greater than or Equal to 260 mg/kg                        |                                |             | IMERC OR<br>RMERC             |
|                                   |   | Total Mercury -- Contains Mercury<br>and Organics and Are Not<br>Incinerator Residues    |                                |             |                               |
|                                   |   | High Mercury Subcategory --<br>Greater than or Equal to 260 mg/kg                        |                                |             | RMERC                         |
| D010                              | WW  |  |                                | X           |                               |
|                                   | NW  | Selenium   | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D011                              | NW  | Silver   | X                              |             |                               |
|                                   | WW  |  |                                | X           |                               |
| D012                              | WW  | Endrin   |                                | X           | BIODG OR INCIN                |
| D013                              | WW  | Lindane  |                                | X           | CARBON OR INCIN               |
| D014                              | WW  | Methoxychlor   |                                | X           | WETOX OR INCIN                |
| D015                              | WW  | Toxaphene  |                                | X           | BIODG OR INCIN                |
| D016                              | WW  | 2,4-D  |                                | X           | CHOXD, BIODG<br>OR INCIN      |
| D017                              | WW  | 2,4,5-TP   |                                | X           | CHOXD OR INCIN                |
| F001                              | WW  |  | SEE TABLE 1                    |             |                               |
|                                   |   | Pharmaceutical Industry -- Wastewater  |                                | SEE TABLE 1 |                               |
| F002                              | NW  |  | SEE TABLE 1                    |             |                               |
|                                   | WW  | Pharmaceutical Industry -- Wastewater  |                                | SEE TABLE 1 |                               |
| F003                              | NW  |  | SEE TABLE 1                    |             |                               |
|                                   | WW  | Pharmaceutical Industry -- Wastewater  |                                | SEE TABLE 1 |                               |
| F004                              | NW  |  | SEE TABLE 1                    |             |                               |
|                                   | WW  | Pharmaceutical Industry -- Wastewater  |                                | SEE TABLE 1 |                               |
| F005                              | NW  |  | SEE TABLE 1                    |             |                               |
|                                   | WW  | Pharmaceutical Industry -- Wastewater  |                                | SEE TABLE 1 |                               |
|                                   |   |  |                                |             | CHOXD) &<br>CARBN; OR INCIN   |
|                                   |   | 2-Ethoxyethanol  |                                |             | BIODG; OR INCIN               |
|                                   | NW  |  | SEE TABLE 1                    |             |                               |
|                                   |   | 2-Nitropropane   |                                |             | INCIN                         |
|                                   |   | 2-Ethoxyethanol  |                                |             | INCIN                         |
| F006                              | NW  |  | X                              | X           |                               |
|                                   | WW  |  |                                | X           |                               |
| F012                              | NW  |  | X                              | X           |                               |
|                                   | WW  |  |                                | X           |                               |
| F019                              | NW  |  | X                              | X           |                               |
|                                   | WW  |  |                                | X           |                               |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION           | APPLICABLE TREATMENT STANDARDS |             |                         |
|-----------------------------------|---|--------------------------------------|--------------------------------|-------------|-------------------------|
|                                   |   |                                      | 268.41(a)                      | 268.43(a)   | SPECIFIED<br>TECHNOLOGY |
| F020                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      | X                              |             |                         |
| F025                              | NW  | Light Ends                           |                                | X           |                         |
|                                   |   | Spent Filters or Aids and Desiccants |                                | X           |                         |
|                                   | WW  | Light Ends                           |                                | X           |                         |
|                                   |   | Spent Filters or Aids and Desiccants |                                | X           |                         |
| F039                              | NW  |                                      | SEE TABLE 2                    | SEE TABLE 2 |                         |
|                                   | WW  |                                      |                                | SEE TABLE 2 |                         |
| K001                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      | X                              | X           |                         |
| K002                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K003                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K004                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K005                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K006                              | NW  | Anhydrous and Hydrated               | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K007                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K008                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K009                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K010                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K014                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K015                              | NW  |                                      | X                              | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K016                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K017                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K018                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K019                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K020                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K022                              | NW  |                                      | X                              | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K023                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K024                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K025                              | NW  |                                      |                                |             |                         |
|                                   | WW  |                                      |                                |             |                         |
| K026                              | NW  |                                      |                                |             |                         |
|                                   | WW  |                                      |                                |             |                         |
| K029                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K030                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K031                              | NW  |                                      | X                              |             |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K032                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K033                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K034                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K035                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |
| K036                              | NW  |                                      |                                | X           |                         |
|                                   | WW  |                                      |                                | X           |                         |



| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION   | APPLICABLE TREATMENT STANDARDS |           |                         |
|-----------------------------------|---|--|--------------------------------|-----------|-------------------------|
|                                   |   |  | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY |
| K037                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K038                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K039                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K040                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K041                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K042                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K046                              | NW  |  | X                              |           |                         |
|                                   | WW  |  |                                | X         |                         |
| K048                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K049                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K050                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K051                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K052                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K061                              | NW  | Low Zinc Subcategory -<br>Less Than 15% Total Zinc                   | X                              |           |                         |
|                                   |   | High Zinc Subcategory -<br>> 15% Total Zinc (Effective until 8/7/91) | X                              |           |                         |
|                                   | WW  |  |                                | X         |                         |
| K062                              | NW  |  | X                              |           |                         |
|                                   | WW  |  |                                | X         |                         |
| K064                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K065                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K066                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K071                              | NW  |  | X                              |           |                         |
|                                   | WW  |  |                                | X         |                         |
| K073                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K083                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K084                              | NW  |  | X                              |           |                         |
|                                   | WW  |  |                                | X         |                         |
| K085                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K086                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K087                              | NW  |  | X                              | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K088                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K090                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K091                              | NW  |  |                                |           |                         |
|                                   | WW  |  |                                |           |                         |
| K093                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K094                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K095                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K096                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K097                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K098                              | NW  |  |                                | X         |                         |
|                                   | WW  |  |                                | X         |                         |
| K100                              | NW  |  | X                              |           |                         |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION  | APPLICABLE TREATMENT STANDARDS |           |   |
|-----------------------------------|---|---|--------------------------------|-----------|---|
|                                   |   |   | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY                                 |
|                                   | WW  |   |                                | X         |   |
| K101                              | NW  |   | X                              | X         |   |
|                                   | WW  |   |                                | X         |   |
| K102                              | NW  |   | X                              |           |   |
|                                   | WW  |   |                                | X         |   |
| K103                              | NW  |   |                                | X         |   |
|                                   | WW  |   |                                | X         |   |
| K104                              | NW  |   |                                | X         |   |
|                                   | WW  |   |                                | X         |   |
| K105                              | NW  |   |                                | X         |   |
|                                   | WW  |   |                                | X         |   |
| K106                              | NW  | Low Mercury Subcategory - <260 mg/kg<br>Mercury Residues From RMERC   | X                              |           |   |
|                                   |   | Low Mercury Subcategory - <260 mg/kg<br>Mercury Residues Not From RMERC   | X                              |           |   |
|                                   | WW  |   |                                | X         |   |
| K111                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K112                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K113                              | NW  | Condensed Liquid Light Ends from the<br>purification of toluenediamine in the<br>production of toluenediamine via hydro-<br>genation of dinitrotoluene. |                                |           | FSUBS or INCIN<br>CARBN or INCIN                        |
|                                   | WW  |   |                                |           |   |
| K114                              | NW  | Vincinals from the purification of<br>toluenediamine in the production of<br>toluenediamine via hydrogenation of<br>dinitrotoluene.                     |                                |           | FSUBS or INCIN<br>CARBN or INCIN                        |
|                                   | WW  |   |                                |           |   |
| K115                              | NW  | Heavy Ends from the purification of<br>toluenediamine in the production of<br>toluenediamine via hydrogenation of<br>dinitrotoluene.                    |                                |           | FSUBS or INCIN<br>CARBN or INCIN                        |
|                                   | WW  |   |                                |           |   |
| K116                              | NW  | Organic Condensate from the solvent<br>recovery column in the production<br>of toluene diisocyanate via phosgenation<br>if toluenediamine.              |                                |           | FSUBS or INCIN<br>CARBN or INCIN                        |
|                                   | WW  |   |                                |           |   |
| K117                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K118                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K124                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K125                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| K126                              | NW  |   |                                |           |   |
|                                   | WW  |   |                                |           |   |
| P001                              | NW  | Wartarin (>0.3%)  |                                |           | FSUBS or INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |   |
| P002                              | NW  | 1-Acetyl-2-thiourea   |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN          |
|                                   | WW  |   |                                |           |   |
| P003                              | NW  | Acrolein  |                                |           | FSUBS or INCIN  |
|                                   | WW  |   |                                |           |   |
| P004                              | NW  |   |                                | X         |   |
|                                   | WW  |   |                                | X         |   |
| P005                              | NW  | Allyl alcohol   |                                |           | FSUBS or INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |   |
| P007                              | NW  | 5-Aminoethyl 3-isoxazolo  |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN          |
|                                   | WW  |   |                                |           |   |
| P008                              | NW  | 4-Aminopyridine   |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN          |
|                                   | WW  |   |                                |           |   |
| P010                              | NW  |   | X                              |           |   |
|                                   | WW  |   |                                | X         |   |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION                  | APPLICABLE TREATMENT STANDARDS |           |  |
|-----------------------------------|---|---|--------------------------------|-----------|--|
|                                   |   |   | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY                        |
| P011                              | NW  |   | X                              |           |  |
|                                   | WW  |   |                                | X         |  |
| P012                              | NW  |   | X                              |           |  |
|                                   | WW  |   |                                | X         |  |
| P013                              | NW  |   | X                              | X         |  |
|                                   | WW  |   |                                | X         |  |
| P014                              | NW  | Thiophenol (Benzene thiol)                  |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P015                              | NW  | Beryllium Dust                              |                                |           | RMETL: RTHRM                                   |
|                                   | WW  |   |                                |           | RMETL: RTHRM                                   |
| P016                              | NW  | Bis(chloromethyl)ether                      |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P017                              | NW  | Bromoacetone                                |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P018                              | NW  | Brucine                                     |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P020                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P021                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P022                              | NW  | Carbon disulfide                            |                                |           | INCIN  |
|                                   | WW  |   |                                | X         |  |
| P023                              | NW  | Chloroacetaldehyde                          |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P024                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P026                              | NW  | 1-(o-Chlorophenyl)thiourea                  |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P027                              | NW  | 3-Chloropropionitrile                       |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P028                              | NW  | Benzyl chloride                             |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P029                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P030                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P031                              | NW  | Cyanogen                                    |                                |           | CHOXD:WETOX:INCIN                              |
|                                   | WW  |   |                                |           | CHOXD:WETOX:INCIN                              |
| P033                              | NW  | Cyanogen chloride                           |                                |           | CHOXD:WETOX:INCIN                              |
|                                   | WW  |   |                                |           | CHOXD:WETOX:INCIN                              |
| P034                              | NW  | 2-Cyclohexyl-4,6-dinitrophenol              |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P036                              | NW  |   | X                              |           |  |
|                                   | WW  |   |                                | X         |  |
| P037                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P038                              | NW  |   | X                              |           |  |
|                                   | WW  |   |                                | X         |  |
| P039                              | NW  |   |                                | X         |  |
|                                   | WW  |   |                                | X         |  |
| P040                              | NW  | O,O-Diethyl O-Pyrazinyl<br>Phosphorothioate |                                |           | FSUBS: INCIN<br>CARBN: INCIN                   |
|                                   | WW  |   |                                |           |  |
| P041                              | NW  | Diethyl-p-nitrophenyl phosphate             |                                |           | FSUBS: INCIN<br>CARBN: INCIN                   |
|                                   | WW  |   |                                |           |  |
| P042                              | NW  | Epinephrine                                 |                                |           | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |   |                                |           |  |
| P043                              | NW  | Diisopropyl fluorophosphate (DFP)           |                                |           | FSUBS: INCIN<br>CARBN: INCIN                   |
|                                   | WW  |   |                                |           |  |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION            | APPLICABLE TREATMENT STANDARDS |           |   |
|-----------------------------------|---|---------------------------------------|--------------------------------|-----------|---|
|                                   |   |                                       | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY                 |
| P044                              | NW  | Diomethoate                           |                                |           | FSUBS; INCIN                            |
|                                   | WW  |                                       |                                |           | CARBN; INCIN                            |
| P045                              | NW  | Thiofanox                             |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P046                              | NW  | alpha, alpha - Dimethylphenethylamine |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P047                              | NW  | 4,6 - Dinitro - o - cresol salts      |                                | X         | INCIN                                   |
|                                   | WW  |                                       |                                | X         | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P048                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P049                              | NW  | 2,4 - Dithiobiuret                    |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P050                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P051                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P054                              | NW  | Aziridine                             |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P056                              | NW  | Fluorine                              |                                | X         | ADGAS fb NEUTR                          |
|                                   | WW  |                                       |                                | X         |   |
| P057                              | NW  | Fluoroacetamide                       |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P058                              | NW  | Fluoroacetic acid, sodium salt        |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P059                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P060                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P062                              | NW  | Hexaethyltetraphosphate               |                                | X         | FSUBS; or INCIN                         |
|                                   | WW  |                                       |                                | X         | CARBN; or INCIN                         |
| P063                              | NW  |                                       |                                |           |   |
|                                   | WW  |                                       |                                |           |   |
| P064                              | NW  | Isocyanic acid, ethyl ester           |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P066                              | NW  | Methomyl                              |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P067                              | NW  | 2 - Methylaziridine                   |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P068                              | NW  | Methyl hydrazine                      |                                |           | FSUBS; CHOXD;<br>CHRED; or INCIN        |
|                                   | WW  |                                       |                                |           | CHOXD; CHRED; CARBN;<br>BIODG; or INCIN |
| P069                              | NW  | Methylacetonitrile                    |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P070                              | NW  | Aldicarb                              |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P071                              | NW  |                                       |                                | X         |   |
|                                   | WW  |                                       |                                | X         |   |
| P072                              | NW  | 1 - Naphthyl - 2 - thiourea           |                                |           | INCIN                                   |
|                                   | WW  |                                       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN   |
| P073                              | NW  |                                       | X                              |           |   |
|                                   | WW  |                                       |                                | X         |   |
| P074                              | NW  |                                       | X                              | X         |   |
|                                   | WW  |                                       |                                | X         |   |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION  | APPLICABLE TREATMENT STANDARDS |                |  |
|-----------------------------------|---|---|--------------------------------|----------------|--|
|                                   |   |   | 268.41(a)                      | 268.43(a)      | SPECIFIED<br>TECHNOLOGY  |
| P075                              | NW<br>WW                                    | Nicotine and salts  |                                |                | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                           |
| P077                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P078                              | NW<br>WW                                    | Nitrogen Oxide  |                                |                | ADGAS<br>ADGAS   |
| P082                              | NW<br>WW                                    | N-Nitrosodimethylamine  |                                | X              | INCIN  |
| P084                              | NW<br>WW                                    | N-Nitrosomethylvinylamine   |                                |                | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                           |
| P085                              | NW<br>WW                                    | Octamethylpyrophosphoramide   |                                |                | FSUBS or INCIN<br>CARBN or INCIN   |
| P087                              | NW<br>WW                                    | Osmium tetroxide  |                                |                | RMETL or RTHRM<br>RMETL or RTHRM   |
| P088                              | NW<br>WW                                    | Endothal  |                                |                | FSUBS or INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                  |
| P089                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P092                              | NW<br>WW<br>NW<br>WW                        | Phenyl Mercury Acetate (High Mercury<br>Subcategory - > or equal to 260 mg/kg<br>total Mercury - either incinerator<br>residues or residues from RMERC<br>Phenyl Mercury Acetate (All Nonwaste -<br>waters that are not incinerator residues<br>or are not residues from RMERC<br>regardless of Mercury content | X<br><br>X                     | <br>X<br><br>X | RMERC<br><br>IMERC or RMERC  |
| P093                              | NW<br>WW                                    | N-Phenythiourea   |                                |                | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                           |
| P094                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P095                              | NW<br>WW                                    | Phosgene  |                                |                | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                           |
| P096                              | NW<br>WW                                    | Phosphine   |                                |                | CHOXD;CHRED;INCIN<br>CHOXD;CHRED;INCIN                                   |
| P097                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P098                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P099                              | NW<br>WW                                    |   | X                              | X<br>X         |  |
| P101                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P102                              | NW<br>WW                                    | Propargyl alcohol   |                                |                | FSUBS or INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                  |
| P103                              | NW<br>WW                                    |   | X                              | X<br>X         |  |
| P104                              | NW<br>WW                                    |   | X                              | X<br>X         |  |
| P105                              | NW<br>WW                                    | Sodium azide  |                                |                | FSUBS;CHOXD;<br>CHRED: or INCIN<br>CHOXD;CHRED;CARBN;<br>BIODG: or INCIN |
| P106                              | NW<br>WW                                    |   |                                | X<br>X         |  |
| P108                              | NW<br>WW                                    | Strychnine and salts  |                                |                | INCIN<br>(WETOX or CHOXD)<br>fb CARBN or INCIN                           |
| P109                              | NW<br>WW                                    | Tetraethyldithiopyrophosphate   |                                |                | FSUBS or INCIN<br>CARBN or INCIN   |
| P110                              | NW<br>WW                                    |   | X                              | X              |  |
| P113                              | NW<br>WW                                    | Thallic oxide   |                                | X              | RTHRM or STABL   |
| P114                              | NW  |   | X                              |                |  |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION | APPLICABLE TREATMENT STANDARDS |           |                                       |
|-----------------------------------|---|----------------------------|--------------------------------|-----------|---------------------------------------|
|                                   |   |                            | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
|                                   | WW  |                            |                                | X         |                                       |
| P115                              | NW  | Thallium (1) sulfate       |                                |           | RTHRM or STABL                        |
|                                   | WW  |                            |                                | X         |                                       |
| P116                              | NW  | Thiosemicarazide           |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| P118                              | NW  | Trichloromethanethiol      |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| P119                              | NW  | Ammonium vanadate          |                                |           | STABL                                 |
|                                   | WW  |                            |                                | X         |                                       |
| P120                              | NW  | Vanadium pentoxide         |                                |           | STABL                                 |
|                                   | WW  |                            |                                | X         |                                       |
| P121                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| P123                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U001                              | NW  | Acetaldehyde               |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U002                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U003                              | NW  | Acetonitrile               |                                | X         | INCIN                                 |
|                                   | WW  |                            |                                | X         | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U004                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U005                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U007                              | NW  | Acrylamide                 |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U008                              | NW  | Acrylic acid               |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U009                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U010                              | NW  | Mitomycin C                |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U011                              | NW  | Amitrole                   |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U012                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U014                              | NW  | Auramine                   |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U015                              | NW  | Azaserine                  |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U016                              | NW  | Benz(c)acridine            |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U017                              | NW  | Benzal chloride            |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U018                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U019                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U021                              | NW  | Benzidine                  |                                |           | INCIN                                 |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U022                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U024                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |
| U025                              | NW  |                            |                                | X         |                                       |
|                                   | WW  |                            |                                | X         |                                       |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION                    | APPLICABLE TREATMENT STANDARDS |           |                                       |
|-----------------------------------|---|---|--------------------------------|-----------|---------------------------------------|
|                                   |   |   | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
| U026                              | NW  | Chlornaphazn                                  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U027                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U028                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U029                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U030                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U031                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U032                              | NW  |   | X                              |           |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U034                              | NW  | Trichloroacetaldehyde (Chloral)               |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U035                              | NW  | Chlorambucil                                  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U036                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U037                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U038                              | NW  | Chlorobenzilate                               |                                |           | INCIN                                 |
|                                   | WW  |   |                                | X         |                                       |
| U039                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U041                              | NW  | 1-Chloro-2,3-epoxypropane<br>(Epichlorhydrin) |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U042                              | NW  | 2-Chloroethyl vinyl ether                     |                                |           | INCIN                                 |
|                                   | WW  |   |                                | X         |                                       |
| U043                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U044                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U045                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U046                              | NW  | Chloromethyl methyl ether                     |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U047                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U048                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U049                              | NW  | 4-Chloro-o-toluidine hydrochloride            |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U050                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U051                              | NW  |   | X                              | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U052                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U053                              | NW  | Crotonaldehyde                                |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U055                              | NW  | Cumene  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U056                              | NW  | Cyclohexane                                   |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U057                              | NW  | Cyclohexanone                                 |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                | X         |                                       |
| U058                              | NW  | Cyclophosphamide                              |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | CARBN or INCIN                        |
| U059                              | NW  | Daunomycin                                    |                                |           | INCIN                                 |

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|-----------------------------------|---|-------------------------------------|--------------------------------|-----------|---------------------------------------|
|                                   |   |                                     | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
|                                   | WW  |                                     |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U060                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U061                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U062                              | NW  | Diallate                            |                                |           | INCIN                                 |
|                                   | WW  |                                     |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U063                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U064                              | NW  | 1,2,7,8-Dibenzopyrene               |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                     |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U066                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U067                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U068                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U069                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U070                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U071                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U072                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U073                              | NW  | 3,3'-Dichlorobenzidine              |                                |           | INCIN                                 |
|                                   | WW  |                                     |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U074                              | NW  | cis-1,4-Dichloro-2-butylene         |                                |           | INCIN                                 |
|                                   | WW  | trans-1,4-Dichloro-2-butylene       |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U075                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U076                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U077                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U078                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U079                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U080                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U081                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U082                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U083                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U084                              | NW  |                                     |                                | X         |                                       |
|                                   | WW  |                                     |                                | X         |                                       |
| U085                              | NW  | 1,2:3,4-Diepoxybutane               |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                     |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U086                              | NW  | N,N-Diethylhydrazine                |                                |           | FSUBS;CHOXD                           |
|                                   | WW  |                                     |                                |           | CHRED or INCIN                        |
| U087                              | NW  | 0,0-Diethyl S-methyldithiophosphate |                                |           | CHOXD;CHRED;CARBN                     |
|                                   | WW  |                                     |                                |           | BIODG; or INCIN                       |
| U088                              | NW  |                                     |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                     |                                | X         | CARBN or INCIN                        |
|                                   |   |                                     |                                | X         |                                       |



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|-----------------------------------|---|------------------------------------|--------------------------------|-----------|---------------------------------------|
|                                   |   |                                    | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
| U089                              | NW  | Diethyl stilbestrol                |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U090                              | NW  | Dihydrosafrole                     |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U091                              | NW  | 3,3' - Dimethoxybenzidine          |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U092                              | NW  | Dimethylamine                      |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U093                              | NW  | p - Dimethylaminoazobenzene        |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                | X         |                                       |
| U094                              | NW  | 7,12 - Dimethyl benz(a)anthracene  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U095                              | NW  | 3,3' - Dimethylbenzidine           |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U097                              | NW  | Dimethylcarbonyl chloride          |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U098                              | NW  | 1,1 - Dimethylhydrazine            |                                |           | FSUBS:CHOXD<br>CHRED or INCIN         |
|                                   | WW  |                                    |                                |           | CHOXD:CHRED:CARBN<br>BIODG; or INCIN  |
| U099                              | NW  | 1,2 - Dimethylhydrazine            |                                |           | FSUBS:CHOXD<br>CHRED or INCIN         |
|                                   | WW  |                                    |                                |           | CHOXD:CHRED:CARBN<br>BIODG; or INCIN  |
| U101                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U102                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U103                              | NW  | Dimethyl sulfate                   |                                |           | FSUBS:CHOXD<br>CHRED or INCIN         |
|                                   | WW  |                                    |                                |           | CHOXD:CHRED:CARBN<br>BIODG; or INCIN  |
| U104                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U105                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U106                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U107                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U108                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U109                              | NW  | 1,2 - Diphenylhydrazine            |                                |           | FSUBS:CHOXD<br>CHRED or INCIN         |
|                                   | WW  |                                    |                                |           | CHOXD:CHRED:CARBN<br>BIODG; or INCIN  |
| U110                              | NW  | Dipropylamine                      |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U111                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U112                              | NW  |                                    |                                | X         |                                       |
|                                   | WW  |                                    |                                | X         |                                       |
| U113                              | NW  | Ethyl acrylate                     |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U114                              | NW  | Ethylene bis - dithiocarbamic acid |                                |           | INCIN                                 |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U115                              | NW  | Ethylene oxide                     |                                |           | CHOXD or INCIN                        |
|                                   | WW  |                                    |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U116                              | NW  | Ethylene thiourea                  |                                |           | INCIN                                 |

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|-----------------------------------|---|----------------------------|--------------------------------|-----------|--|
|                                   |   |                            | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY<br>(WETOX or CHOXD)<br>fb CARBN or INCIN |
|                                   | WW  |                            |                                |           |  |
| U117                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U118                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U119                              | NW  | Ethyl methane sulfonate    |                                |           | INCIN  |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U120                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U121                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U122                              | NW  | Formaldehyde               |                                |           | FSUBS or INCIN   |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U123                              | NW  | Formic acid                |                                |           | FSUBS or INCIN   |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U124                              | NW  | Furan                      |                                |           | FSUBS or INCIN   |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U125                              | NW  | Furfural                   |                                |           | FSUBS or INCIN   |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U126                              | NW  | Glycidialdehyde            |                                |           | FSUBS or INCIN   |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U127                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U128                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U129                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U130                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U131                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U132                              | NW  | Hexachlorophenene          |                                |           | INCIN  |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U135                              | NW  | Hydrogen sulfide           |                                |           | CHOXD; CHRED<br>or INCIN   |
|                                   | WW  |                            |                                |           | CHOXD; CHRED<br>or INCIN   |
| U136                              | NW  |                            | X                              |           |  |
|                                   | WW  |                            |                                | X         |  |
| U137                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U138                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U140                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U141                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U142                              | NW  |                            |                                | X         |  |
|                                   | WW  |                            |                                | X         |  |
| U143                              | NW  | Lasiocarpine               |                                |           | INCIN  |
|                                   | WW  |                            |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN                            |
| U144                              | NW  |                            | X                              |           |  |
|                                   | WW  |                            |                                | X         |  |
| U145                              | NW  |                            | X                              |           |  |
|                                   | WW  |                            |                                | X         |  |
| U146                              | NW  |                            | X                              |           |  |
|                                   | WW  |                            |                                | X         |  |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION  | APPLICABLE TREATMENT STANDARDS |           |                                       |
|-----------------------------------|---|---|--------------------------------|-----------|---------------------------------------|
|                                   |   |   | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
| U147                              | NW  | Maleic anhydride  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U148                              | NW  | Maleic hydrazide  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U149                              | NW  | Malononitrile   |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U150                              | NW  | Malphalan   |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U151                              | NW  | High Mercury Subcategory --<br>Greater than 260 mg/kg Total Mercury                     |                                | X         | RMERC                                 |
|                                   |   | Low Mercury Subcategory --<br>Less than 260 mg/kg Mercury --<br>Residues from RMERC     | X                              | X         |                                       |
|                                   | WW  | Low Mercury Subcategory --<br>Less than 260 mg/kg Mercury --<br>Residues not from RMERC | X                              | X         |                                       |
|                                   | NW  |   | X                              |           | IMERC                                 |
|                                   | WW  |   |                                | X         |                                       |
|                                   |   |   |                                |           |                                       |
| U152                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U153                              | NW  | Methane thiol   |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U154                              | NW  | Methanol  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                | X         | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U155                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U156                              | NW  | Methyl chlorocarbonate  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U157                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U158                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U159                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U161                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U162                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U163                              | NW  | N - Methyl N' - nitro N - Nitrosoguanidine  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U164                              | NW  | Methylthiouracil  |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U165                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U166                              | NW  | 1,4 - Naphthoquinone  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U167                              | NW  | 1 - Naphthylamine   |                                |           | INCIN                                 |
|                                   | WW  |   |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U168                              | NW  | 2 - Naphthylamine   |                                |           | INCIN                                 |
|                                   | WW  |   |                                | X         |                                       |
| U169                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |
| U170                              | NW  |   |                                | X         |                                       |
|                                   | WW  |   |                                | X         |                                       |

| US EPA<br>HAZARDOUS<br>WASTE CODE | WASTEWATER (WW)<br>OR<br>NONWASTEWATER (NW) | SUBCATEGORY<br>DESCRIPTION  | APPLICABLE TREATMENT STANDARDS |           |                                       |
|-----------------------------------|---|-----------------------------|--------------------------------|-----------|---------------------------------------|
|                                   |   |                             | 268.41(a)                      | 268.43(a) | SPECIFIED<br>TECHNOLOGY               |
| U171                              | NW  | 2-Nitropropane              |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U172                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U173                              | NW  | N-Nitroso-di-n-ethanolamine |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U174                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U176                              | NW  | N-Nitroso-N-ethylurea       |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U177                              | NW  | N-Nitroso-N-methylurea      |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U178                              | NW  | N-Nitroso-N-methylurethane  |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U179                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U180                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U181                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U182                              | NW  | Paraldehyde                 |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U183                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U184                              | NW  | Pentachloroethane           |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U185                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U186                              | NW  | 1,3-Pentadiene              |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U187                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U188                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U190                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U191                              | NW  | 2-Picoline                  |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U192                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U193                              | NW  | 1,3-Propane sultone         |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U194                              | NW  | n-Propylamine               |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U196                              | NW  |                             |                                | X         |                                       |
|                                   | WW  |                             |                                | X         |                                       |
| U197                              | NW  | p-Benzoquinone              |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U200                              | NW  | Reserpine                   |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U201                              | NW  | Resorcinol                  |                                |           | FSUBS or INCIN                        |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U202                              | NW  | Saccharin and salts         |                                |           | INCIN                                 |
|                                   | WW  |                             |                                |           | (WETOX or CHOXD)<br>fb CARBN or INCIN |
| U203                              | NW  |                             |                                | X         |                                       |

TABLE 1 -- F001-F005 SPENT SOLVENTS (1)

| REGULATED HAZARDOUS CONSTITUENT          | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                     |
|--|--|------------------------------------|---------------------|
|  |  | WASTE-<br>WATERS                   | NONWASTE-<br>WATERS |
| ACETONE (2)                              | 67-64-1  | 0.05                               | 0.59                |
| n-BUTYL ALCOHOL (2)                      | 71-36-3  | 5                                  | 5                   |
| CARBON DISULFIDE (2)                     | 75-15-0  | 1.05                               | 4.81                |
| CARBON TETRACHLORIDE (2)                 | 56-23-5  | 0.05                               | 0.96                |
| CHLOROBENZENE (2)                        | 108-90-7   | 0.15                               | 0.05                |
| CRESOLS (AND CRESYLIC ACID) (2)          |  | 2.82                               | 0.75                |
| CYCLOHEXANONE (2)                        | 108-94-1   | 0.125                              | 0.75                |
| 1,2-DICHLOROBENZENE (2)                  | 95-50-1  | 0.65                               | 0.125               |
| ETHYL ACETATE (2)                        | 141-78-6   | 0.05                               | 0.75                |
| ETHYLBENZENE (2)                         | 100-41-4   | 0.05                               | 0.053               |
| ETHYL ETHER (2)                          | 60-29-7  | 0.05                               | 0.75                |
| ISOBUTANOL (2)                           | 78-83-1  | 5                                  | 5                   |
| METHANOL (2)                             | 67-56-1  | 0.25                               | 0.75                |
| METHYLENE CHLORIDE (2)                   | 75-9-2   | 0.2                                | 0.96                |
| METHYL ETHYL KETONE (2)                  | 78-93-3  | 0.05                               | 0.75                |
| METHYL ISOBUTYL KETONE (2)               | 108-10-1   | 0.05                               | 0.33                |
| NITROBENZENE (2)                         | 98-95-3  | 0.66                               | 0.125               |
| PYRIDINE (2)                             | 110-86-1   | 1.12                               | 0.33                |
| TETRACHLOROETHYLENE (2)                  | 127-18-4   | 0.079                              | 0.05                |
| TOLUENE (2)                              | 108-88-3   | 1.12                               | 0.33                |
| 1,1,1-TRICHLOROETHANE (2)                | 71-55-6  | 1.05                               | 0.41                |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUORETHANE (2) | 76-13-1  | 1.05                               | 0.96                |
| TRICHLOROETHYLENE (2)                    | 79-01-6  | 0.062                              | 0.091               |
| TRICHLOROFLUOROMETHANE (2)               | 75-69-4  | 0.05                               | 0.96                |
| XYLENE (2)                               |  | 0.05                               | 0.15                |
| METHYLENE CHLORIDE (3)                   | 75-09-2  | 0.44                               |                     |

## NOTES:

- (1) THIS TABLE SHOULD BE ATTACHED TO THE LDR WHEN SHIPPING F001 THROUGH F005 WASTES.
- (2) TAKEN FROM 268.41 TABLE CCWE -- ALLOWABLE CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT.
- (3) TAKEN FROM 268.43 TABLE CCW -- ALLOWABLE CONSTITUENT CONCENTRATIONS IN WASTES.

TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT |     | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                     |
|---------------------------------|-----|--|------------------------------------|---------------------|
|                                 |     |  | WASTE-<br>WATERS                   | NONWASTE-<br>WATERS |
| ANTIMONY                        | (2) | 7440-36-0  |                                    | 0.23                |
| ARSENIC                         | (2) | 7440-38-2  |                                    | 5                   |
| BARIUM                          | (2) | 7440-39-3  |                                    | 52                  |
| CADMIUM                         | (2) | 7440-43-9  |                                    | 0.066               |
| CHROMIUM (TOTAL)                | (2) | 7440-47-32   |                                    | 5.2                 |
| LEAD                            | (2) | 7439-92-1  |                                    | 0.51                |
| MERCURY                         | (2) | 7439-97-6  |                                    | 0.025               |
| NICKEL                          | (2) | 7440-02-0  |                                    | 0.32                |
| SELENIUM                        | (2) | 7782-49-2  |                                    | 5.7                 |
| SILVER                          | (2) | 7440-22-4  |                                    | 0.072               |
| ACETONE                         | (3) | 67-64-1  | 0.28                               | 160                 |
| ACENAPHTHALENE                  | (3) | 208-96-8   | 0.059                              | 3.4                 |
| ACENAPHTHENE                    | (3) | 83-32-9  | 0.059                              | 4                   |
| ACETONITRILE                    | (3) | 75-05-8  | 0.17                               | NA                  |
| ACETOPHENONE                    | (3) | 96-86-2  | 0.01                               | 9.7                 |
| 2-ACETYLAMINOFLUORENE           | (3) | 53-96-3  | 0.059                              | 140                 |
| ACROLEIN                        | (3) |  |                                    |                     |
| ACRYLONITRILE                   | (3) | 107-02-8   | 0.29                               | NA                  |
| ALDRIN                          | (3) | 107-13-1   | 0.24                               | 84                  |
|                                 | (3) | 309-00-2   | 0.021                              | 0.066               |
| 4-AMINOBIIPHENYL                | (3) | 92-67-1  | 0.13                               | NA                  |
| ANILINE                         | (3) | 62-53-3  | 0.81                               | 14                  |
| ANTHRACENE                      | (3) | 120-12-7   | 0.059                              | 4                   |
| ARAMITE                         | (3) | 140-57-8   | 0.36                               | NA                  |
| AROCLOR 1016                    | (3) | 12674-11-2   | 0.013                              | 0.92                |
| AROCLOR 1221                    | (3) | 11104-28-2   | 0.014                              | 0.92                |
| AROCLOR 1232                    | (3) | 11141-15-5   | 0.013                              | 0.92                |
| AROCLOR 1242                    | (3) | 53469-21-9   | 0.017                              | 0.92                |
| AROCLOR 1248                    | (3) | 12672-29-6   | 0.013                              | 0.92                |
| AROCLOR 1254                    | (3) | 11097-69-1   | 0.014                              | 1.8                 |
| AROCLOR 1260                    | (3) | 11096-82-5   | 0.014                              | 1.8                 |
| ALPHA-BHC                       | (3) | 319-84-6   | 0.00014                            | 0.066               |
| BETA-BHC                        | (3) | 319-85-7   | 0.00014                            | 0.066               |
| DELTA-BHC                       | (3) | 319-86-8   | 0.023                              | 0.066               |
| GAMMA-BHC                       | (3) | 58-89-9  | 0.0017                             | 0.066               |
| BENZENE                         | (3) | 71-43-2  | 0.14                               | 36                  |
| BENZ(A)ANTHRACENE               | (3) | 56-55-3  | 0.059                              | 8.2                 |
| BENZO(B)-FLUORANTHENE           | (3) | 205-99-2   | 0.055                              | 3.4                 |
| BENZO(K)-FLUORANTHENE           | (3) | 207-08-9   | 0.059                              | 3.4                 |
| BENZO(G,H,I)-PERYLENE           | (3) | 191-24-2   | 0.0055                             | 1.5                 |
| BENZO(A)PYRENE                  | (3) | 50-32-8  | 0.061                              | 8.2                 |
| BROMDICHLOROMETHANE             | (3) | 75-27-4  | 0.35                               | 15                  |
| BRMOFORM (TRIBROMOMETHANE)      | (3) | 75-25-2  | 0.63                               | 15                  |
| BROMOMETHANE (METHYL BROMIDE)   | (3) | 74-83-9  | 0.11                               | 15                  |
| 4-BROMOPHENYL PHENYL ETHER      | (3) | 101-55-3   | 0.055                              | 15                  |
| n-BUTYL ALCOHOL                 | (3) | 71-36-3  | 5.6                                | 2.6                 |

TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT             | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                     |
|---|--|------------------------------------|---------------------|
|   |  | WASTE-<br>WATERS                   | NONWASTE-<br>WATERS |
| BUTYL BENZYL PHTHALATE (3)                  | 85-68-7  | 0.017                              | 7.9                 |
| 2-SEC-BUTYL-4,6-DINITROPHENOL (3)           | 88-85-7  | 0.066                              | 2.5                 |
| CARBON TETRACHLORIDE (3)                    | 56-23-5  | 0.057                              | 5.6                 |
| CARBON DISULFIDE (3)                        | 75-15-0  | 0.014                              | NA                  |
| CHLORDANE (3)                               | 57-74-9  | 0.0033                             | 0.13                |
| p-CHLOROANILINE (3)                         | 106-47-8   | 0.46                               | 16                  |
| CHLOROBENZENE (3)                           | 108-90-7   | 0.057                              | 5.7                 |
| CHLOROBENZILATE (3)                         | 510-15-6   | 0.1                                | NA                  |
| 2-CHLORO-1,3-BUTADIENE (3)                  | 126-99-8   | 0.057                              | NA                  |
| CHLORODIBROMOMETHANE (3)                    | 124-48-1   | 0.057                              | 15                  |
| CHLOROETHANE (3)                            | 75-00-3  | 0.27                               | 6                   |
| bis(2-CHLOROETHOXY)METHANE (3)              | 111-91-1   | 0.036                              | 7.2                 |
| bis(2-CHLOROETHYL) ETHER (3)                | 111-44-4   | 0.033                              | 7.2                 |
| CHLOROFORM (3)                              | 67-66-3  | 0.046                              | 5.6                 |
| bis(2-CHLOROISOPROPYL) ETHER (3)            | 39638-32-9   | 0.055                              | 7.2                 |
| p-CHLORO-m-CRESOL (3)                       | 59-50-7  | 0.018                              | 14                  |
| CHLOROMETHANE (METHYL CHLORIDE) (3)         | 74-87-3  | 0.19                               | 33                  |
| 2-CHLORONAPHTHALENE (3)                     | 91-8-7   | 0.055                              | 5.6                 |
| 2-CHLOROPHENOL (3)                          | 95-57-8  | 0.044                              | 5.7                 |
| 3-CHLOROPROPYLENE (3)                       | 107-05-1   | 0.036                              | 28                  |
| CHRYSENE (3)                                | 218-01-9   | 0.059                              | 8.2                 |
| o-CRESOL (3)                                | 95-48-7  | 0.11                               | 5.6                 |
| CRESP; ) <- AND p-ISOMERS) (3)              |  | 0.77                               | 3.2                 |
| CYCLOHEXANONE (3)                           | 108-94-1   | 0.36                               | NA                  |
| 1,2-DIBROMO-3-CHLOROPROPANE (3)             | 96-12-8  | 0.11                               | 15                  |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) (3)  | 106-93-4   | 0.028                              | 15                  |
| DIBROMOMETHANE (3)                          | 74-95-3  | 0.11                               | 15                  |
| 2,4-DICHLOROPHENOXY-ACETIC ACID (2,4-D) (3) | 94-75-7  | 0.72                               | 10                  |
| o,p'-DDD (3)                                | 53-19-0  | 0.023                              | 0.087               |
| p,p'-DDD (3)                                | 72-54-8  | 0.023                              | 0.087               |
| o,p'-DDE (3)                                | 3424-82-6  | 0.031                              | 0.087               |
| p,p'-DDE (3)                                | 72-55-9  | 0.031                              | 0.087               |
| o,p'-DDT (3)                                | 789-02-6   | 0.0039                             | 0.087               |
| p,p'-DDT (3)                                | 50-29-3  | 0.0039                             | 0.087               |
| DIBENZ(A,H) ANTHRACENE (3)                  | 53-70-3  | 0.055                              | 8.2                 |
| DIBENZO(A,E) PYRENE (3)                     | 192-65-4   | 0.061                              | NA                  |
| m-DICHLOROBENZENE (3)                       | 541-73-1   | 0.036                              | 6.2                 |
| o-DICHLOROBENZENE (3)                       | 95-50-1  | 0.088                              | 6.2                 |
| p-DICHLOROBENZENE (3)                       | 106-46-7   | 0.09                               | 6.2                 |
| DICHLORODIFLUOROMETHANE (3)                 | 75-71-8  | 0.23                               | 7.2                 |
| 1,1-DICHLOROETHANE (3)                      | 75-34-3  | 0.059                              | 7.2                 |
| 1,2-DICHLOROETHANE (3)                      | 107-06-2   | 0.21                               | 7.2                 |
| 1,1-DICHLOROETHYLENE (3)                    | 75-35-4  | 0.025                              | 33                  |
| TRANS 1,2-DICHLOROETHYLENE (3)              |  | 0.054                              | 33                  |
| 2,4-DICHLOROPHENOL (3)                      | 120-83-2   | 0.044                              | 14                  |
| 2,6-DICHLOROPHENOL (3)                      | 87-65-0  | 0.044                              | 14                  |

TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT |     | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                      |
|---------------------------------|-----|--|------------------------------------|----------------------|
|                                 |     |  | WASTE -<br>WATERS                  | NONWASTE -<br>WATERS |
| 1,2-DICHLOROPROPANE             | (3) | 78-87-5  | 0.85                               | 18                   |
| CIS-1,3-DICHLOROPROPANE         | (3) | 10061-01-5   | 0.036                              | 18                   |
| TRANS-1,3-DICHLOROPROPANE       | (3) | 10061-02-6   | 0.036                              | 18                   |
| DIELDRIN                        | (3) | 60-57-1  | 0.017                              | 0.13                 |
| DIETHYL PHTHALATE               | (3) | 84-66-2  | 0.2                                | 28                   |
| 2,4-DIMETHYL PHENOL             | (3) | 105-67-9   | 0.036                              | 14                   |
| DIMETHYL PHTHALATE              | (3) | 131-11-3   | 0.047                              | 28                   |
| DI-N-BUTYL PHTHALATE            | (3) | 84-74-2  | 0.057                              | 28                   |
| 1,4-DINITROBENZENE              | (3) | 100-25-4   | 0.32                               | 2.3                  |
| 4,6-DINITRO-O-CRESOL            | (3) | 534-52-1   | 0.28                               | 160                  |
| 2,4-DINITROPHENOL               | (3) | 51-28-5  | 0.12                               | 160                  |
| 2,4-DINOTROTOLUENE              | (3) | 121-14-2   | 0.32                               | 140                  |
| 2,6-DINOTROTOLUENE              | (3) | 606-20-2   | 0.55                               | 28                   |
| DI-N-OCTYL PHTHALATE            | (3) | 117-84-0   | 0.017                              | 28                   |
| DI-N-PROPYLNITROSOAMINE         | (3) | 621-64-7   | 0.4                                | 14                   |
| DIPHENYLAMINE                   | (3) | 122-39-4   | 0.52                               | NA                   |
| 1,2-DIPHENOL HYDRAZINE          | (3) | 122-66-7   | 0.087                              | NA                   |
| DIPHENYL NITROSAMINE            | (3) | 621-64-7   | 0.4                                | NA                   |
| 1,4-DIOXANE                     | (3) | 123-91-1   | 0.12                               | 170                  |
| DISULFOTON                      | (3) | 298-04-4   | 0.017                              | 6.2                  |
| ENDOSULFAN I                    | (3) | 939-98-8   | 0.023                              | 0.066                |
| ENDOSULFAN II                   | (3) | 33213-6-5  | 0.029                              | 0.13                 |
| ENDOSULTAN SULFATE              | (3) | 1031-07-8  | 0.029                              | 0.13                 |
| ENDRIN                          | (3) | 72-20-8  | 0.0028                             | 0.13                 |
| ENDRIN ALDEHYDE                 | (3) | 7421-93-4  | 0.025                              | 0.13                 |
| ETHYL ACETATE                   | (3) | 141-78-6   | 0.34                               | 33                   |
| ETHYL CYANIDE                   | (3) | 107-12-0   | 0.24                               | 360                  |
| ETHYL BENZENE                   | (3) | 100-41-4   | 0.057                              | 6                    |
| ETHYL ETHER                     | (3) | 60-29-7  | 0.12                               | 160                  |
| BIS (2-ETHYLHEXYL) PHTHALATE    | (3) | 117-81-7   | 0.28                               | 28                   |
| ETHYL METHACRYLATE              | (3) | 97-63-2  | 0.14                               | 160                  |
| ETHYLENE OXIDE                  | (3) | 75-21-8  | 0.12                               | NA                   |
| FAMPUR                          | (3) | 52-85-7  | 0.017                              | 15                   |
| FLUORANTHENE                    | (3) | 206-44-0   | 0.068                              | 8.2                  |
| FLUORENE                        | (3) | 86-73-7  | 0.059                              | 4                    |
| FLUOROTRICHLOROMETHANE          | (3) | 75-69-4  | 0.02                               | 33                   |
| HEPTACHLOR                      | (3) | 76-44-8  | 0.0012                             | 0.066                |
| HEPTACHLOR EPOXIDE              | (3) | 1024-57-3  | 0.016                              | 0.066                |
| HEXACHLOROBENZENE               | (3) | 118-74-1   | 0.055                              | 37                   |
| HEXACHLOROBUTADIENE             | (3) | 87-68-3  | 0.055                              | 28                   |
| HEXACHLOROCYCLOPENTADIENE       | (3) | 77-47-4  | 0.057                              | 3.6                  |
| HEXACHLORODIBENZO-FURANS        | (3) |  | 0.000063                           | 0.001                |
| HEXACHLORODIBENZO-P-DIOXINS     | (3) |  | 0.000063                           | 0.001                |
| HEXACHLOROETHANE                | (3) | 67-72-1  | 0.055                              | 28                   |
| HEXACHLOROPROPENE               | (3) | 1888-71-7  | 0.035                              | 28                   |
| INDENO(1,2,3-C,D)PYRENE         | (3) | 193-39-5   | 0.0055                             | 8.2                  |



TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT         | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                     |
|---|--|------------------------------------|---------------------|
|   |  | WASTE-<br>WATERS                   | NONWASTE-<br>WATERS |
| IODOMETHANE (3)                         | 74-88-4  | 0.19                               | 65                  |
| ISOBUTANOL (3)                          | 78-83-1  | 5.6                                | 170                 |
| ISODRIN (3)                             | 465-73-6   | 0.021                              | 0.066               |
| ISOSAFROLE (3)                          | 120-58-1   | 0.081                              | 2.6                 |
| KEPONE (3)                              | 143-50-8   | 0.0011                             | 0.13                |
| METHACRYLONITRILE (3)                   | 126-98-7   | 0.24                               | 84                  |
| METHANOL (3)                            | 67-56-1  | 5.6                                | NA                  |
| METHAPYRILENE (3)                       | 91-80-5  | 0.081                              | 1.5                 |
| METHOXYCHLOR (3)                        | 72-43-5  | 0.25                               | 0.18                |
| 3-METHYLCHOLANTHRENE (3)                | 56-49-5  | 0.0055                             | 15                  |
| 4,4-METHYLENE-BIS-(2-CHLOROANILINE) (3) | 101-14-4   | 0.5                                | 35                  |
| METHYLENE CHLORIDE (3)                  | 75-09-2  | 0.089                              | 33                  |
| METHYL ETHYL KETONE (3)                 | 78-93-3  | 0.28                               | 36                  |
| METHYL ISOBUTYL KETONE (3)              | 108-10-1   | 0.14                               | 33                  |
| METHYL METHACRYLATE (3)                 | 80-62-6  | 0.14                               | 160                 |
| METHYL METHANSULFONATE (3)              | 66-27-3  | 0.018                              | NA                  |
| METHYL PARATHION (3)                    | 298-00-0   | 0.014                              | 4.6                 |
| NAPHTHALENE (3)                         | 91-20-3  | 0.059                              | 3.1                 |
| 2-NAPHTHYLAMINE (3)                     | 91-59-8  | 0.52                               | NA                  |
| P-NITROANILINE (3)                      | 100-01-6   | 0.028                              | 28                  |
| NITROBENZENE (3)                        | 98-95-3  | 0.068                              | 14                  |
| 5-NITRO-O-TOLUIDINE (3)                 | 99-55-8  | 0.32                               | 28                  |
| 4-NITROPHENOL (3)                       | 100-02-7   | 0.12                               | 29                  |
| N-NITROSODIETHYLAMINE (3)               | 55-18-5  | 0.4                                | 28                  |
| N-NITROSODIMETHYLAMINE (3)              | 62-75-9  | 0.4                                | NA                  |
| N-NITroso-DI-N-BUTYLAMINE (3)           | 924-16-3   | 0.4                                | 17                  |
| N-NITROSOMETHYLETHYLAMINE (3)           | 10595-95-6   | 0.4                                | 2.3                 |
| N-NITROSOMORPHOLINE (3)                 | 59-89-2  | 0.4                                | 2.3                 |
| N-NITROSOPIPERIDINE (3)                 | 100-75-4   | 0.013                              | 35                  |
| N-NITROSOPYRROLIDINE (3)                | 930-55-2   | 0.013                              | 35                  |
| PARATHION (3)                           | 56-38-2  | 0.014                              | 4.6                 |
| PENTACHLOROBENZENE (3)                  | 608-93-5   | 0.055                              | 37                  |
| PENTACHLORODIBENZO-FURANS (3)           |  | 0.000063                           | 0.001               |
| PENTACHLORODIBENZO-P-DIOXINS (3)        |  | 0.000063                           | 0.001               |
| PENTACHLORONITROBENZENE (3)             | 82-68-8  | 0.055                              | 4.8                 |
| PENTACHLOROPHENOL (3)                   | 87-86-5  | 0.089                              | 7.4                 |
| PHENACETIN (3)                          | 62-44-2  | 0.081                              | 16                  |
| PHENANTHRENE (3)                        | 85-01-8  | 0.059                              | 3.1                 |
| PHENOL (3)                              | 108-95-2   | 0.039                              | 6.2                 |
| PHORATE (3)                             | 298-02-2   | 0.021                              | 4.6                 |
| PHTHALIC ANHYDRIDE (3)                  | 85-44-9  | 0.069                              | NA                  |
| PRONAMIDE (3)                           | 23950-58-5   | 0.093                              | 1.5                 |
| PYRENE (3)                              | 129-00-0   | 0.067                              | 8.2                 |
| PYRIDINE (3)                            | 110-86-1   | 0.014                              | 16                  |
| SAFROLE (3)                             | 94-59-7  | 0.081                              | 22                  |
| SILVEX (2,4,5-TP) (3)                   | 93-72-1  | 0.72                               | 7.9                 |

TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT            | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                      |
|--|--|------------------------------------|----------------------|
|  |  | WASTE -<br>WATERS                  | NONWASTE -<br>WATERS |
| 2,4,5-T (3)                                | 93-76-5  | 0.72                               | 7.9                  |
| 1,2,4,5-TETRACHLOROBENZENE (3)             | 95-94-3  | 0.055                              | 19                   |
| TETRACHLORODIBENZO-FURANS (3)              |  | 0.000063                           | 0.001                |
| TETRACHLORODIBENZO-P-DIOXINS (3)           |  | 0.000063                           | 0.001                |
| 1,1,1,2-TETRACHLOROETHANE (3)              | 630-20-6   | 0.057                              | 42                   |
| 1,1,2,2-TETRACHLOROETHANE (3)              | 79-34-6  | 0.057                              | 42                   |
| TETRACHLOROETHYLENE (3)                    | 127-18-4   | 0.056                              | 5.6                  |
| 2,3,4,6-TETRACHLOROPHENOL (3)              | 58-90-2  | 0.03                               | 37                   |
| TOLUENE (3)                                | 108-88-3   | 0.08                               | 28                   |
| TOXAPHENE (3)                              | 8001-35-1  | 0.0095                             | 1.3                  |
| 1,2,4-TRICHLOROBENZENE (3)                 | 120-82-1   | 0.055                              | 19                   |
| 1,1,1-TRICHLOROETHANE (3)                  | 71-55-6'   | 0.054                              | 5.6                  |
| 1,1,2-TRICHLOROETHANE (3)                  | 79-00-5  | 0.054                              | 5.6                  |
| TRICHLOROETHYLENE (3)                      | 79-01-6  | 0.054                              | 5.6                  |
| 2,4,5-TRICHLOROPHENOL (3)                  | 95-95-4  | 0.18                               | 37                   |
| 2,4,6-TRICHLOROPHENOL (3)                  | 88-06-2  | 0.035                              | 37                   |
| 1,2,3-TRICHLOROPROPANE (3)                 | 96-18-4  | 0.85                               | 28                   |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUORO-ETHANE (3) | 76-13-1  | 0.057                              | 28                   |
| TRIS(2,3-DIBROMOPROPYL) PHOSPHATE (3)      | 126-72-7   | 0.011                              | NA                   |
| VINYL CHLORIDE (3)                         | 75-01-4  | 0.27                               | 33                   |
| XYLENE(S) (3)                              |  | 0.32                               | 28                   |
| CYANIDES (TOTAL) (3)                       | 57-12-5  | 1.2                                | 1.8                  |
| FLUORIDE (3)                               | 16964-48-8   | 35                                 | NA                   |
| SULFIDE (3)                                | 8496-25-8  | 14                                 | NA                   |
| ANTIMONY (3)                               | 7440-36-0  | 1.9                                | NA                   |
| ARSENIC (3)                                | 7440-38-2  | 1.4                                | NA                   |
| BARIUM (3)                                 | 7440-39-3  | 1.2                                | NA                   |
| BERYLLIUM (3)                              | 7440-41-7  | 0.82                               | NA                   |
| CADMIUM (3)                                | 7440-43-9  | 0.2                                | NA                   |
| CHROMIUM (TOTAL) (3)                       | 7440-47-32   | 0.37                               | NA                   |
| COPPER (3)                                 | 7440-50-8  | 1.3                                | NA                   |
| LEAD (3)                                   | 7439-92-1  | 0.28                               | NA                   |
| MERCURY (3)                                | 7439-97-6  | 0.15                               | NA                   |
| NICKEL (3)                                 | 7440-02-0  | 0.55                               | NA                   |
| SELENIUM (3)                               | 7782-49-2  | 0.82                               | NA                   |
| SILVER (3)                                 | 7440-22-4  | 0.29                               | NA                   |
| THALLIUM (3)                               | 7440-28-0  | 1.4                                | NA                   |
| VANADIUM (3)                               | 7440-62-2  | 0.042                              | NA                   |
| ZINC (3)                                   | 7440-66-6  | 1                                  | NA                   |

TABLE 2 -- F039 (1)

| REGULATED HAZARDOUS CONSTITUENT | CAS NO. FOR<br>REGULATED<br>HAZARDOUS<br>CONSTITUENT | ALLOWABLE<br>CONCENTRATIONS (mg/l) |                      |
|---------------------------------|--|------------------------------------|----------------------|
|                                 |  | WASTE -<br>WATERS                  | NONWASTE -<br>WATERS |

## NOTES:

- (1) THIS TABLE SHOULD BE ATTACHED TO THE LDR WHEN SHIPPING F039 WASTES.
- (2) TAKEN FROM 268.41 TABLE CCWE -- ALLOWABLE CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT.
- (3) TAKEN FROM 268.43 TABLE CCW -- ALLOWABLE CONSTITUENT CONCENTRATIONS IN WASTES.

Attachment 15

4/26/93 Rec'd this proble. I question the process, is this on U.S.T. ? send fax off to Penn

4/29/93 ~~Approved # 980260044~~ Gave file to Becky

5-14-93 Approval letter mailed. Pst

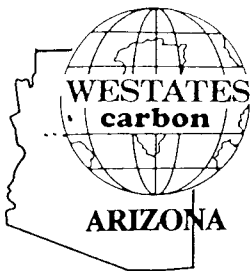
7/24/93 Rec'd letter to update proble. NCAT is to enter the correct EPA # in item 1 of the NCAT proble (CAL000043195). We are to then update the cover letter and send to everyone. Gave to Tony

7/27/93 Rec'd 8 drums today

7/30/93 Retyped letter, correcting EPA #, corrected same on profile. JMC

8/06/93 - Mailed / made copies JMC

8/13/93 - Mailed Manifest & letter JMC



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

July 30, 1993

Ms. Lucia R. Chou  
Engineer  
**CHEVRON U.S.A. PRODUCTS COMPANY**  
P.O. Box 5004  
San Ramon, CA 94583-0804

RE: Correcting the USEPA Generator ID number on the Spent Carbon  
Profile Form for Site: RMC Lonestar, 333 23rd Ave, Oakland,  
California

Dear Ms. Chou:

In reference to the above, I am enclosing a corrected copy of the CHEVRON U.S.A. PRODUCTS COMPANY approved Westates Carbon-Arizona, Inc. (WCAI) profile. This profile reflects the correct USEPA Generator ID number **CAL000043195**. The approval number is 930360RH. This number is valid through April 29, 1994. At that time, WCAI will require CHEVRON U.S.A. PRODUCTS COMPANY to recertify their material. WCAI will notify CHEVRON U.S.A. PRODUCTS COMPANY approximately 30 days prior to the expiration date.

Westates Carbon-Arizona, Inc. appreciates the efforts of CHEVRON U.S.A. PRODUCTS COMPANY to conserve the environment.

Sincerely,

Jeffrey S. Walsh  
Environmental Health & Safety Manager

Enclosure

cc: Donna Jones - Westates Carbon, Inc. - Oakland  
Gary Stephenson - Westates Carbon, Inc. - Los Angeles  
file

JW/jm

## SPENT CARBON PROFILE FORM

GW

Profile Approval No. 930360RH - Valid through 4/29/94

☐ Check here if this  
is a RegenerationProfile No. 930360RHApproved: [Signature]Approval Date: 3/31/93

Other Use Only

1. GENERATOR USEPA ID: CAL 000043195
2. GENERATOR NAME: Chevron U.S.A. Products Company
3. GENERATOR ADDRESS: 2410 Camino Ramon  
San Ramon, CA 94583
4. SITE NAME & ADDRESS: RMC Lonestar  
333 - 23rd Avenue  
Oakland, CA
5. CONTACT PERSON AND PHONE: Jeff Stivers TITLE: Engineer PHONE: 510-233-3200
- A. TECHNICAL: same as above TITLE: " PHONE: "

## PROPERTIES AND COMPOSITION

6. PROCESS GENERATING WASTE: groundwater containing dissolved diesel from a truck spill is pumped from the ground and processed through aqueous carbon then discharged to the sewer
7. TYPE OF CARBON: A. ☒ AQUA ☐ VAPOR ☐ PELLETIZED ☐ IMPREGNATED B. MESH SIZE 8x30
8. CHEMICAL COMPOSITION: LIST ALL CONSTITUENTS (INCLUDING HALOGENATED ORGANICS) PRESENT IN ANY CONCENTRATION AND FORWARD AVAILABLE ANALYSIS.

| CONSTITUENTS  | RANGE       | UNIT       | CONSTITUENTS | RANGE | UNIT |
|---------------|-------------|------------|--------------|-------|------|
| <u>diesel</u> | <u>9900</u> | <u>nph</u> |              |       |      |
|               |             |            |              |       |      |
|               |             |            |              |       |      |
|               |             |            |              |       |      |

9. A. INDICATE IF ANALYSIS IS FROM: ☒ INFLUENT STREAM ☐ SPENT CARBON B. SAMPLE TAKEN ☒ YES ☐ NO  
C. IF YES ATTACH CLAIM OF CUSTODY ☒
10. A. FREE LIQUID RANGE: 1% TO 5% B. pH: RANGE 6 TO 8 OR NOT APPLICABLE ☐
11. IGNITABLE: ☐ YES ☒ NO FLASH POINT n/a
12. A. STRONG ODOR ☐ YES ☒ NO DESCRIBE: ---- B. FOREIGN MATERIAL ☐ YES ☒ NO DESCRIBE: ----
13. OTHER: PCBs ☐ YES ☒ NO If yes, concentration ppm, PCBs regulated by 40 CFR 761 ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☐  
Shock Sensitive ☐ Oxidizer ☐ Carcinogen ☐ Infectious ☐ Other ----

## CLASSIFICATION

14. Is the waste subject to the land ban? Yes ☐ No ☒
15. A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes ☐ No ☒  
B. Identify ALL USEPA listed and characteristic waste code numbers (D, P, K, F, U) D018

16. A. Is this a STATE regulated waste? ☒ YES ☐ NO  
B. Identify ALL STATE waste codes: 352

## SHIPPING INFORMATION

17. PACKAGING: Bulk Solid ☐ Slurry ☐ Drum ☒ Type/Size: DOT/55 gallon Other none
18. ANTICIPATED ANNUAL VOLUME: 600 pounds SHIPPING FREQUENCY: biannual

## GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any analysis submitted is hereby representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize Westlake Carbon - Arizona to obtain a sample from any waste shipment for purposes of re-certification.

SIGNATURE

Lucja R. Chou - Engineer  
PRINTED NAME AND TITLE

DATE

3/31/93



# Superior Precision Analytical, Inc.

1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Geraghty & Miller Inc.  
Attn: David Thomas

Project RC17402  
Reported 02/22/93

## TOTAL PETROLEUM HYDROCARBONS

| Lab #    | Sample Identification | Sampled  | Analyzed Matrix |
|----------|-----------------------|----------|-----------------|
| 14159- 1 | A (EFFLUENT)          | 02/12/93 | 02/17/93 Water  |
| 14159- 2 | B (INTERMEDIATE)      | 02/12/93 | 02/17/93 Water  |
| 14159- 3 | C (INFLUENT)          | 02/12/93 | 02/18/93 Water  |

## RESULTS OF ANALYSIS

Laboratory Number: 14159- 1 14159- 2 14159- 3

|                |        |        |        |
|----------------|--------|--------|--------|
| Benzene:       | ND<0.5 | ND<0.5 | ND<0.5 |
| Toluene:       | ND<0.5 | ND<0.5 | ND<0.5 |
| Ethyl Benzene: | ND<0.5 | ND<0.5 | ND<0.5 |
| Xylenes:       | ND<0.5 | ND<0.5 | ND<0.5 |
| Diesel:        | 830    | 1100   | 9900   |
| Concentration: | ug/L   | ug/L   | ug/L   |



Construction Facility Number Oakland Lonestar  
 Facility Address 333 23<sup>rd</sup> Ave. Oakland, CA  
 Consultant Project Number RC 17402  
 Consultant Name Geraghty & Miller  
 Address 1050 Marina Way South, Richmond, CA 94804  
 Project Contact (Name) David Thomas  
 (Phone) (415) 233-3200 (Fax Number) 415 233-3204

Chivron Contact (Name) Lucia Chay  
 1/15/97 (Phone) 510-842-9655  
 Laboratory Name Superior Analytical (Lab # 1332)  
 Laboratory Release Number 8746241 (415-647-2681)  
 Samples Collected by (Name) Jeff Stivers  
 Collection Date 2/12/93  
 Signature [Signature]

| Sample Number  | Number of Containers | Matrix<br>S = Soil    A = Air<br>W = Water    C = Charcoal | Type<br>C = Grab<br>C = Composites<br>D = Discrete | Time | Sample Preservation | Iod (Yes or No) | Analyses To Be Performed |                      |                          |                          |                              |                    |  |  |  |  | Remarks |           |
|--|----------------------|--|--|------|---------------------|-----------------|--------------------------|----------------------|--------------------------|--------------------------|------------------------------|--------------------|--|--|--|--|---------|-----------|
|  |                      |  |  |      |                     |                 | BTEX<br>(8020)           | TPH Diesel<br>(8015) | Oil and Grease<br>(3520) | Chlorinated HC<br>(8010) | Non Chlorinated HC<br>(8020) | Total Lead<br>(AA) | Metals<br>Cd,Cr,Pb,Zn,Hg<br>(ICAP or AA) |  |  |  |         |           |
| A (effluent)   | 3                    | W  | G  | 1715 | HCl                 | Y               | X                        |                      |                          |                          |                              |                    |  |  |  |  |         | 40 mL VOA |
| A (effluent)   | 1                    | W  | G  | 1715 | none                | Y               |                          | X                    |                          |                          |                              |                    |  |  |  |  |         | 1 L Amber |
| B (intermediate)   | 3                    | W  | G  | 1715 | HCl                 | Y               | X                        |                      |                          |                          |                              |                    |  |  |  |  |         | 40 mL VOA |
| B (intermediate)   | 1                    | W  | G  | 1715 | none                | Y               |                          | X                    |                          |                          |                              |                    |  |  |  |  |         | 1 L Amber |
| C (influent)   | 3                    | W  | G  | 1715 | HCl                 | Y               | X                        |                      |                          |                          |                              |                    |  |  |  |  |         | 40 mL VOA |
| C (influent)   | 1                    | W  | G  | 1715 | none                | Y               |                          | X                    |                          |                          |                              |                    |  |  |  |  |         | 1 L Amber |
| <div><div>Please Initial: <u>                    </u></div><div>Samples Stored In Ice. <u>                    </u></div><div>Appropriate container. <u>                    </u></div><div>Samples preserved. <u>                    </u></div><div>VOAs without headspace. <u>                    </u></div><div>Comments: <u>                    </u></div></div> <div>T-50</div> |                      |  |  |      |                     |                 |                          |                      |                          |                          |                              |                    |  |  |  |  |         |           |

Reinforced By (Signature)

### Organization

Date/Mm/YY  
2-16-93.

Received By (Signature)

### Organization

Date/Time:

Turn Around Time (Circle Choice)

Revised By (Signature)

## Organization

Date/Time:

Received By (Signature)

## Organization

Date/Time

Relinquished By (Signature)

## Organization

Date/Time: \_\_\_\_\_

Received For Laboratory By (Signature)

Date/Time

24 Hrs.

48 Hrs.


8 Days

10 Days

As Contracted

Darius A. Kroger

## M E M O R A N D U M

DATE: July 21, 1993  
TO: Jeff Walsh  
FROM: Gary Stephenson   
SUBJECT: WCAI Approval # 930360RH

---

Please see the attached generator request to correct EPA I.D. number the their profile.

Please update your records accordingly. Attempts are being made to load this shipment on the next available milk run.

The generator has been advised that your office will soon issue a update letter for their records.

cc: Jim Junge  
Sandra Gonzales  
Donna Jones  
file:930360RH



**Chevron U.S.A. Products Company**

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500  
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

July 16, 1993  
Project No. RC17402

Mr. Gary Stephenson  
Westates Carbon  
2130 Leo Avenue  
Los Angeles, California 90040

SUBJECT: USEPA Generator ID Number, RMC Lonestar Site, 333-23rd Avenue,  
Oakland, California.

Dear Mr. Stephenson:

We are in receipt of approved Spent Carbon Profile Form # 930360RH for the above referenced site. Upon reviewing the form, we noted that the USEPA Generator ID number is incorrect. All other information on the form is correct. The correct USEPA Generator ID number for this site is CAL000043195. Please insert the correct ID number on the profile forms in your files. The Hazardous Waste Manifest used for transporting the spent carbon from this site will reflect the correct number.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Lucia R. Chou", with a long horizontal flourish extending to the right.

Lucia R. Chou  
Site Assessment and Remediation Engineer  
Chevron U.S.A. Products Company

UNIFORM HAZARDOUS  
WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1

Information in the shaded areas  
is not required by Federal law.

C A D 0 0 9 1 6 4 0 2 1 4 2 4 0 9

of 1

3. Generator's Name and Mailing Address LC 09022 (CHARGE # 56402 )

A. State Manifest Document Number

92042409

SHELL OIL COMPANY, P. O. BOX 711

B. State Generator's ID

H A H Q 3 6 0 0 8 1 9 5

MARTINEZ, CA 94553

ATTN: M. FAZIO

4. Generator's Phone (510) 313-3492

C. State Transporter's ID

4104337 X 210734 21 Jul 93

5. Transporter X Company Name TRANSP #2

6. US EPA ID Number

D. Transporter's Phone (805) 322-4408

STURGEON AND SON

C A D 0 0 4 7 7 8 7 4 2

E. State Transporter's ID

310731

7. Transporter X Company Name TRANSP #1

8. US EPA ID Number

F. Transporter's Phone (510) 639-7274

WESTATES

C A D 9 8 2 4 0 3 9 3 3

G. State Facility's ID

A Z D 9 8 2 4 4 1 2 6 3

9. Designated Facility Name and Site Address

10. US EPA ID Number

XXX WESTATES CARBON, INC. 21 Jul 93

A Z D 9 8 2 4 4 1 2 6

2523 MUTAHAR STREET

PARKER, AZ 84334

XXXXXXXXXXXXXXXXXXXXXXX

H. Facility's Phone

(602) 669-5758

11. US DOT Description including Proper Shipping Name, Hazard Class, and ID Number:

12. Containers  
No. Type

13. Total  
Quantity

14. Unit  
Wt. Vol

I. Waste Number  
State 352

WASTE, SPENT CARBON  
NON-RCRA HAZARDOUS WASTE SOLID

017

05950

EPA/Other  
N/A

State

EPA/Other

State

EPA/Other

State

EPA/Other

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

PETROLEUM HYDROCARBONS 1-10%, SPENT ACTIVATED CARBON  
95-100%

a. 07-01

WESTATES CARBON PROFILE #930320SH

c.

d.

15. Special Handling Instructions and Additional Information

WASH EXPOSED SKIN WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET  
FACILITIES. FOR PRODUCT EMERGENCY, DAY OR NIGHT, CALL CHEMTREC AT 1-800-424-9300, TOLL  
FREE. (REF. MSDS #52,450-6 SHELL MARINE FUEL OIL) ERGN32

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified,  
packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be  
economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future  
threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best  
waste management method that is available to me and that I can afford.

Printed Typed Name

BRYAN MUELLER

Signature

Bryan Mueller

Month Day Year  
07 21 93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Typed Name

Aneal McLaurin

Signature

Aneal McLaurin

Month Day Year  
07 21 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Typed Name

Jack Steinhilber

Signature

Jack Steinhilber

Month Day Year  
07 22 93

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 17.

Printed Typed Name

Signature

Month Day Year

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

GENERATOR

FA  
C  
I  
L  
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T  
Y

|  |                      |                |
|--|----------------------|----------------|
| Post-It™ brand fax transmittal memo 7671 |                      | # of pages ▶ 1 |
| To Jeff Walsh                            | From James Lake      |                |
| Co. Westates                             | Co. Shell            |                |
| Dept.                                    | Phone # 510-313-3281 |                |
| Fax # 602-669-5775                       | Fax # 510-313-3065   |                |

**Shell Oil Company**

P.O. Box 711  
Martinez, California 94553  
Telephone: (510) 313-3000

23 August 1993

Jeff Walsh  
Westates Carbon - Arizona, Inc.  
P.O. Box E  
Parker, AZ 85344

Dear Mr. Walsh,

Subject: Spent Carbon from the MFO Tank Vent System

At your request, I submit this explanation for spent carbon shipped to you from the MFO tank vent system at Shell Oil Company's Martinez Manufacturing Complex. The carbon submitted on manifest # 92042409 consists of material approved under both profile No. 930370SH and profile No. 930320SH. The only difference between the two profiles is that this one is for pelletized carbon while the first is for vapor carbon. The spent carbon in each profile comes from the same unit.

If you have any questions with regard to this submittal please call me at 510-313-3281.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "James E. Lake".

James E. Lake, Engineer  
Environmental Conservation Department  
Shell Oil Company

- 5/21/93 Rec'd this profile from Houston. Because of the fax and the profile being hand written, I cannot read it. It's also on the old profile, please change over to the new one. I also need more of a process, sent off to Texas. I also want to speak w/ Wanda speaking w/ Wanda, he wants to handle working w/ mercury to J.N. & notify J.R. sent fax
- 5/25/93 Rec'd this profile from Jerry. JN to speak w/ Wanda soon.
- 5/27/93 Wanda says that we do not want to handle mercury at any level. JN to advise Jerry
- 6/3/93 spoke w/ Wanda and this is very low. He said to accept. JN to handle.
- Approval Number 930409611. Gave to Becky
- 6-08-93 Approval letter mailed.
- 6-10-93 spoke w/ Jerry. He's sending me a letter stating that there may be some H2O in the drum. He'll be sending 80 drums on 6/21/93. Return these copies to L.A.
- 6/16/93 9<sup>00</sup> on 6/22/93. these bags may be a mix
- 6/22/93 Re'd so Ins
- 6/30/93 so drums coming soon.
- 7/1/93 Re'd so drums today. See the memo
- 8/10/93 Per request from Wanda, WCS Houston, faxed manifests no. LAA318174 w/cover letter. Also faxed #LAA3181742 & LAA3181736.
- 8/22/93 on 7/19/93 we rec'd 80 drums

**BP OIL**

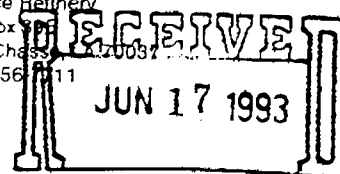
BP Oil Company

Alliance Refinery

P.O. Box 100

Belle Chasse, LA 70003

(504) 656-7011



June 11, 1993

Westates Carbon, Inc.  
6134 South Loop East  
Houston, Texas 77087  
Attention: Jerry Ramdhami

Dear Mr. Ramdhami:

Pursuant to our meeting on June 10, 1993, BP Oil - Alliance Refinery is informing you that some of the spent carbon drums (Profile Number 930409RH) may contain some free liquid entrained in the spent carbon.

If you have any questions or need additional information, please contact Randy L. Borne of our Environmental Services Staff at (504) 656-3352.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Susan I. Caito'.

Susan I. Caito  
Refinery Manager

RLB/caf

R15-93-7

SENT BY: Xerox Telecopier 7020 : 5-25-93 : 9:15AM :

BP OIL HSEQ-

917138401489: # 3



BP OIL

BP Oil Company  
Alliance Refinery  
P.O. Box 385  
Belle Chasse, LA 70037  
(504) 858-7711

Dear Sir,

The Carbon Drums will be shipped with the following  
Label until we receive labels with the revised new  
DOT Proper Shipping Name as per Profile.

*Randy Ben*

# HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY  
AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERATOR INFORMATION:

NAME BP OIL-ALLIANCE REFINERYADDRESS LA HWY. 23 SOUTH PHONE (504) 858-7711CITY BELLE CHASSE STATE LA ZIP 70037

EPA / MANIFEST

ID NO. / DOCUMENT NO. LA0088024391

ACCUMULATION

START DATE

EPA

WASTE NO. D018

HAZARDOUS WASTE SOLID, H.O.S.

(BENZENE), ORM-E, NA9189

RQ (EPA D018)

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

## HANDLE WITH CARE!

STYLE W46P

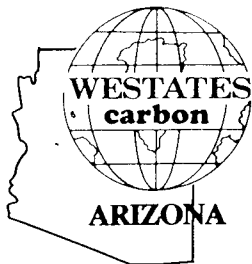
Re-Order From: DUMAG PRINTING Harvey, LA. (504) 368-2027



# GENERATOR

B. P. O. /

[illegible]



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

June 8, 1993

Mr. Randy Borne  
H.S.E. Technician  
B.P. OIL ALLIANCE REFINERY  
Post Office Box 395  
Belle Chasse, LA 70037

Re: Highway 23 South, Belle Chasse, Louisiana

Dear Mr. Borne:

I am enclosing a photo copy of the B.P. OIL ALLIANCE REFINERY approved Westates Carbon-Arizona, Inc. (WCAI) profile. The approval number is **930409RH**. This number is valid through June 4, 1994. At that time, WCAI will require B.P. OIL ALLIANCE REFINERY to recertify their material. WCAI will notify B.P. OIL ALLIANCE REFINERY approximately 30 days prior to the expiration date.

Westates Carbon-Arizona, Inc. appreciates the efforts of B.P. OIL ALLIANCE REFINERY to conserve the environment.

Sincerely,

Jeffrey S. Walsh  
Environmental Health & Safety Manager

cc: Mark Bailey - Westates Carbon, Inc. - Houston  
Gary Stephenson - Westates Carbon, Inc. - Los Angeles  
File

SENT BY Xerox Telecopier 7020 : 5-25-93 : 9:14AM :

BP OIL HSEQ-

9171364014691# 2

P02

# Westates Carbon, Inc. Parker, Arizona Reactivation Facility SPENT CARBON PROFILE FORM

At Office Use Only

Check here if this is a Recertification  
Territory

Approval No.

930409RH

Valid Through

6-04-94

**A. GENERATOR INFORMATION**

1. GENERATOR: SPRUE ALLIANCE
2. U.S. EPA ID NO.: LAB 05 602 4391 & STATE ID NO.: NA
3. GENERATOR MAILING ADDRESS: P.O. BOX 395, BELLS CHASE, LA 70037-0395
4. GENERATOR MAILING CONTACT: LARRY POORE & TITLE: ENV. SPS. 7. PHONE: 504-656-2312
5. GENERATOR SITE ADDRESS: HWY 23 SOUTH BELLS CHASE, LA 70037
6. GENERATOR SITE CONTACT: RANDY BORNE 10. TITLE: HSE TECHNICIAN 11. PHONE: 504-656-2352
12. GENERATING FIRM & ADDRESS:
13. GENERATING FIRM CONTACT: PLANTING 14. TITLE: 15. PHONE: 504-656-2316

**B. PROPERTIES AND COMPOSITION**

1. PROCESS GENERATING WASTE: SCRUBBING SEWAGE VENTS
  2. TYPE OF CARBON: ☐ Liquid ☒ Vapor ☐ Pelletized ☐ Impregnated ☐ Mix & MESH SIZE: 4 X 8 OR 6 X 10
  3. CHEMICAL COMPOSITION: Below, list all constituents (including halogenated organics) present in any concentration.
- | CONSTITUENT    | RANGE          | UNIT/PPM   | CONSTITUENT             | RANGE                   | UNIT/PPM   |
|----------------|----------------|------------|-------------------------|-------------------------|------------|
| <u>Benzene</u> | <u>0-0.001</u> | <u>PPM</u> | <u>Chlorinated Comp</u> | <u>0-0.01 / 0-0.017</u> | <u>PPM</u> |
| <u>Acetone</u> | <u>0-0.001</u> | <u>PPM</u> | <u>Carbon</u>           | <u>44-92</u>            | <u>PPM</u> |
| <u>Benzol</u>  | <u>0-0.01</u>  | <u>PPM</u> | <u>Hydrolyzable</u>     | <u>0-0.01 / 0-0.001</u> | <u>PPM</u> |
5. INDICATE IF ANALYSIS IS FROM: ☐ Influent Stream ☒ Spent Carbon
  6. IS ANALYSIS ATTACHED? ☒ Yes ☐ No
  7. FREE LIQUID RANGE: 0 TO None
  8. STRONG ODOR: ☐ NO ☒ YES DESPERATELY DISGUSTING
  9. PH RANGE: 3 TO 11 OR ☐ NOT APPLICABLE
  10. IGNITABLE: ☒ NO ☐ YES FLASHPOINT: > 210 °F
  11. FOREIGN MATERIAL: ☒ NO ☐ YES DESPERATE
  12. OTHER: PCB'S ☒ NO ☐ YES  
IF YES, CONCENTRATION: PPM  
☐ PCB'S REGULATED BY 40 CFR 761  
☐ PYROPHORIC ☐ SHOCK SENSITIVE  
☐ EXPLOSIVE ☐ OXIDIZER  
☐ RADIO ACTIVE ☐ CARCINOGEN  
☐ INFECTIOUS ☐ OTHER

**C. CLASSIFICATION**

1. Is this a U.S. EPA Hazardous Waste? ☐ NO ☒ YES If no, attach summary of decision.
2. Identify all U.S. EPA listed and characteristic waste codes (E, F, K, P, U): D018
3. Is this a State Hazardous Waste? ☐ NO ☒ YES
4. Identify all State Waste Codes: NA
5. Is this waste subject to the Land Ban? ☒ NO ☐ YES If yes, attach completed WCI Land Ban Restriction Notice

**D. SHIPPING INFORMATION**

1. Packaging: ☒ DRUM ☒ BAG ☐ ROLL-OFF ☐ SLURRY OTHER
2. Anticipated Annual Volume: 350 DRUMS
3. Shipping Frequency: 90 DAYS

**E. NOTES**INCLUDE DOT DESCRIPTIONRQ, HAZARDOUS WASTE SOLID LIQ (BENZENE) (D018), 9  
NA 3077 PG III (EPA D018)**F. GENERATOR'S CERTIFICATION**

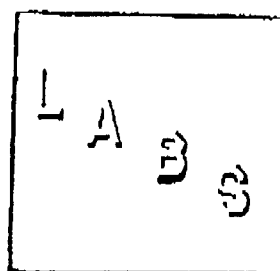
I hereby certify that all information is true and all attached documents contain true and accurate descriptions of the waste. Any analysis submitted is here by representative as defined in 40 CFR 261 - Appendix A or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize Westates Carbon, Inc. to obtain a sample from any waste shipment for purposes of identification.

SIGNATURE

PRINTED NAME AND TITLE

DATE

R. L. BorneR. L. Borne / HSE Technician5-25-93



Laboratory &  
Analytical  
Business  
Services

800 W. PLAQUEMINE STREET

CHURCH POINT, LOUISIANA 70525

318-684-3130

CONTRACTOR: B P OIL ALLIANCE REFINERY  
IDENTIFICATION: CARBON DRUM ; MH-436 03-43

CURRENT DATE: MARCH 29, 1993  
DATE RECEIVED: 3/22/93 @ 11:30 AM  
DATE COMPLETE: 3/29/93 @ 4:00 PM

LAB # 30075

QUALITY ASSURANCE/QUALITY CONTROL # 30075

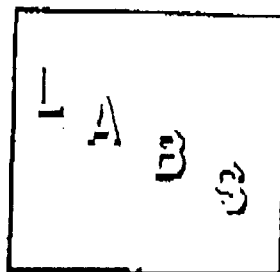
PAGE 1 OF 2

SW 846 METHOD DATE / TIME / ANALYST  
1311 3/22 @ 1:45 PM CS  
3520 3/23 @ 9:00 AM CS  
8260 3/24 @ 2:40 PM CS  
8270 3/23 @ 6:24 PM CS

DATE SAMPLED: 3/19/93

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE CFR 261.24 APPENDIX II - SW846 METHOD 1311 - JUNE 29, 1990 EDITION  
WASTE SW 846

| CODE         | METHOD | CASE #    | PARAMETER            | CORRECTED RESULTS * | DETECTION LIMIT | UNITS | EPA LIMIT | UNITS | RECOVERY | Q A/Q C - SPIKE | MATRIX UNITS | SPIKE % RECOVERY |
|--------------|--------|-----------|----------------------|---------------------|-----------------|-------|-----------|-------|----------|-----------------|--------------|------------------|
| HEAVY METALS |        |           |                      |                     |                 |       |           |       |          |                 |              |                  |
| D004         | 7061   | 7440-38-2 | ARSENIC              | 0.001               | 0.001           | MG/L  | 5         | MG/L  | 4.89 /   |                 | 5            | 97.80 %          |
| D005         | 7080   | 7440-39-3 | BARIUM               | 0.13                | 0.01            | MG/L  | 100       | MG/L  | 9.36 /   |                 | 10           | 93.60 %          |
| D006         | 7130   | 7440-43-9 | CADMIUM              | < 0.01              | 0.01            | MG/L  | 1         | MG/L  | 0.989 /  |                 | 1            | 98.90 %          |
| D007         | 7190   | 1333-82-0 | CHROMIUM             | 0.73                | 0.01            | MG/L  | 5         | MG/L  | 4.62 /   |                 | 5            | 92.40 %          |
| D008         | 7420   | 7439-92-1 | LEAD                 | 0.19                | 0.01            | MG/L  | 5         | MG/L  | 3.08 /   |                 | 5            | 101.60 %         |
| D009         | 7470   | 7439-97-6 | MERCURY              | 0.001               | 0.0005          | MG/L  | 0.2       | MG/L  | 0.189 /  |                 | 0.2          | 94.50 %          |
| D010         | 7741   | 7782-49-2 | SELENIUM             | 0.001               | 0.001           | MG/L  | 1         | MG/L  | 0.987 /  |                 | 1            | 98.70 %          |
| D011         | 7760   | 7440-22-4 | SILVER               | < 0.01              | 0.01            | MG/L  | 5         | MG/L  | 4.88 /   |                 | 5            | 97.60 %          |
| ORGANICS     |        |           |                      |                     |                 |       |           |       |          |                 |              |                  |
| D018         | 8260   | 71-43-2   | BENZENE              | 28857.42            | 2.40            | UG/L  | 0.5       | MG/L  | 523 /    |                 | 500          | 104.60 %         |
| D019         | 8260   | 56-23-5   | CARBON TETRACHLORIDE | BDL                 | 3.80            | UG/L  | 0.5       | MG/L  | 496 /    |                 | 500          | 99.20 %          |
| D021         | 8260   | 108-90-7  | CHLOROBENZENE        | BDL                 | 1.70            | UG/L  | 100       | MG/L  | 98.8 /   |                 | 100          | 98.80 %          |
| D022         | 8260   | 67-66-3   | CHLOROFORM           | BDL                 | 6.20            | UG/L  | 6         | MG/L  | 586 /    |                 | 600          | 97.67 %          |
| D023         | 8270   | 95-48-7   | O-CRESOL             | BDL                 | 1.50            | UG/L  | 200       | MG/L  | 10214 /  |                 | 10000        | 102.14 %         |
| D024         | 8270   | 108-39-4  | M-CRESOL             | BDL                 | 1.90            | UG/L  | 200       | MG/L  | 9769 /   |                 | 10000        | 97.69 %          |
| D025         | 8270   | 106-44-5  | P-CRESOL             | BDL                 | 2.60            | UG/L  | 200       | MG/L  | 10456 /  |                 | 10000        | 104.56 %         |
| D026         | 8270   | (ALL)     | CRESOL               | **                  | 3.00            | UG/L  | 200       | MG/L  | **       |                 | **           | **               |
| D027         | 8270   | 106-46-7  | 1,4-DICHLOROBENZENE  | BDL                 | 0.32            | UG/L  | 7.5       | MG/L  | 9937 /   |                 | 10000        | 99.37 %          |
| D028         | 8260   | 107-06-2  | 1,2-DICHLOROETHANE   | BDL                 | 0.24            | UG/L  | 0.5       | MG/L  | 452 /    |                 | 500          | 90.40 %          |
| D029         | 8260   | 75-35-4   | 1,1-DICHLOROETHYLENE | BDL                 | 5.40            | UG/L  | 0.7       | MG/L  | 691 /    |                 | 700          | 98.71 %          |
| D030         | 8270   | 121-14-2  | 2,4-DINITROTOLUENE   | BDL                 | 5.70            | UG/L  | 0.13      | MG/L  | 139.6 /  |                 | 130          | 107.38 %         |
| D032         | 8270   | 118-74-1  | HEXACHLOROBENZENE    | BDL                 | 1.90            | UG/L  | 0.13      | MG/L  | 127.4 /  |                 | 130          | 98.00 %          |
| D033         | 8270   | 87-68-3   | HEXACHLOROBUTADIENE  | BDL                 | 0.90            | UG/L  | 0.5       | MG/L  | 482 /    |                 | 500          | 96.40 %          |
| D034         | 8270   | 67-72-1   | HEXACHLOROETHANE     | BDL                 | 1.60            | UG/L  | 3         | MG/L  | 3045 /   |                 | 3000         | 101.50 %         |
| D035         | 8260   | 78-93-3   | METHYL ETHYL KETONE  | BDL                 | 1.60            | UG/L  | 200       | MG/L  | 9816 /   |                 | 10000        | 98.16 %          |



Laboratory &  
Analytical  
Business  
Services

800 W. PLAQUEMINE STREET

CHURCH POINT, LOUISIANA 70525

318-684-3130

CONTRACTOR: B P OIL ALLIANCE REFINERY  
IDENTIFICATION: CARBON DRUM | MH-436 05-43

CURRENT DATE: MARCH 29, 1993  
DATE RECEIVED: 3/22/93 @ 11:30 AM  
DATE COMPLETE: 3/29/93 @ 4:00 PM

LAB # 30075

PAGE 2 OF 2

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE CFR 261.24 APPENDIX II - SW846 METHOD 1311 - JUNE 29, 1990 EDITION

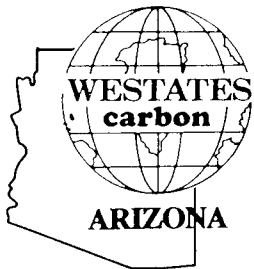
WASTE SW 846

| CODE              | METHOD | CASE #   | PARAMETER             | CORRECTED RESULTS * | DETECTION LIMIT | UNITS | EPA LIMIT | UNITS | Q A/Q C - RECOVERY | M A T R I X SPIKE | S P I K E % RECOVERY |
|-------------------|--------|----------|-----------------------|---------------------|-----------------|-------|-----------|-------|--------------------|-------------------|----------------------|
| ORGANICS - CONT'D |        |          |                       |                     |                 |       |           |       |                    |                   |                      |
| D036              | 8270   | 98-95-3  | NITROBENZENE          | BDL                 | 1.90 UG/L       |       | 2 MG/L    |       | 1983 /             | 2000 UG/L         | 99.15 %              |
| D037              | 8270   | 87-85-5  | PENTACHLOROPHENOL     | BDL                 | 3.60 UG/L       |       | 100 MG/L  |       | 9402 /             | 10000 UG/L        | 94.02 %              |
| D038              | 8270   | 110-86-1 | PYRIDINE              | BDL                 | 1.90 UG/L       |       | 5 MG/L    |       | 5089 /             | 5000 UG/L         | 101.78 %             |
| D039              | 8260   | 127-18-4 | TETRACHLOROETHYLENE   | BDL                 | 1.80 UG/L       |       | 0.7 MG/L  |       | 691 /              | 700 UG/L          | 98.71 %              |
| D040              | 8260   | 79-01-6  | TRICHLOROETHYLENE     | BDL                 | 1.60 UG/L       |       | 0.5 MG/L  |       | 478 /              | 500 UG/L          | 95.60 %              |
| D041              | 8270   | 95-95-4  | 2,4,6-TRICHLOROPHENOL | BDL                 | 3.00 UG/L       |       | 400 MG/L  |       | 9575 /             | 10000 UG/L        | 95.75 %              |
| 42                | 8270   | 88-06-2  | 2,4,6-TRICHLOROPHENOL | BDL                 | 2.70 UG/L       |       | 2 MG/L    |       | 1989 /             | 2000 UG/L         | 99.45 %              |
| D043              | 8260   | 75-01-4  | VINYL CHLORIDE        | BDL                 | 0.18 UG/L       |       | 0.2 MG/L  |       | 203.2 /            | 200 UG/L          | 101.60 %             |

\*BDL = BELOW DETECTION LIMIT. RESULTS ARE CORRECTED ACCORDING TO EPA CALCULATIONS FOUND IN THE TCLP METHOD. HEAVY METALS ARE REPORTED IN MG/L, ALL OTHERS ARE IN UG/L. REMEMBER THAT EPA LIMITS ARE IN MG/L. TO CONVERT FROM UG/L TO MG/L - DIVIDE UG/L BY 1000. \*\*PLEASE REFER TO THE O-CRESOL, M-CRESOL, AND P-CRESOL FOR TOTAL CRESOL & MATRIX SPIKE RECOVERIES OF CRESOLS.

| PARAMETER             | RESULTS | UNITS/EPA LIMITS | DATE /TIME /ANALYST | METHOD        |
|-----------------------|---------|------------------|---------------------|---------------|
| REACTIVITY:IT CYANIDE | < 0.01  | MG/L             | 3/24 @ 4:30 PM - PA | SEC. 7.3 1310 |
| REACTIVITY:IT SULFIDE | 1       | MG/L             | 3/24 @ 4:35 PM - PA | SEC. 7.3 1310 |
| FLASHPOINT            | > 210   | (140 F           | 3/24 @ 4:45 PM - PA | SW 846 1010   |
| PH                    | 8.31    | (2 OR >12        | 3/24 @ 4:40 PM - PA | SW 846 9040   |

ATTEST: \_\_\_\_\_



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

JUL 09 1993

Mr. Randy Borne  
H.S.E. Technician  
**B.P. OIL ALLIANCE REFINERY**  
P.O. Box 395  
Belle Chasse, LA 70037

**RE: HIGHWAY 23 SOUTH, BELLE HASSE, LOUISIANA**

Dear Mr. Borne:

Enclosed is the appropriate copy of the Hazardous Waste Manifest resulting in the transfer of recyclable material by **B.P. OIL ALLIANCE REFINERY** to Westates Carbon-Arizona TSDF and the transportation of this material to the Parker, Arizona facility.

Sincerely,

Jeffrey S. Walsh  
Environmental Health & Safety Manager

Enclosure

cc: file

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
HAZARDOUS WASTE DIVISION  
P.O. BOX 82178  
BATON ROUGE, LOUISIANA 70884-2178

PLEASE PRINT OR TYPE (Form designed for use on 8 1/2" (12-pitch) typewriter)

Form Approved OMB No. 2050-0049 Expires 9/30/90

|  |  |   |  |  |  |   |  |
|--|--|---|--|--|--|---|--|
| <b>UNIFORM HAZARDOUS WASTE MANIFEST</b>  |  | Generator's US EPA ID No<br>L A D 0 5 6 0 2 4 3 9 1 0 0 0 4 7 |  | Manifest Document No<br>1 of 1                           |  | 2. Page 1<br>Information in the shaded areas is not required by Federal law |  |
| 3. Generator's Name and Mailed Address<br>BP Oil - Alliance Refinery<br>P.O. Box 395<br>Belle Chasse, La. 70037  |  |   |  | A. State Manifest Document Number<br><b>LA A 3181741</b> |  |   |  |
| 4. Generator's Phone 504 656-3352  |  |   |  | B. State Generator's ID                                  |  |   |  |
| 5. Transporter 1 Company Name<br>Triad Transport   |  | 6. US EPA ID Number<br>0 K D 9 8 1 5 8 8 7 9 1                |  | C. State Transporter's ID                                |  | D. Transporter's Phone 800-324-1139   |  |
| 7. Transporter 2 Company Name  |  | 8. US EPA ID Number   |  | E. State Transporter's ID                                |  | F. Transporter's Phone  |  |
| 9. Designated Facility Name and Site Address<br>Westates Carbon - Arizona, Inc.<br>2523 Muta Har<br>Parker, AZ 85344   |  | 10. US EPA ID Number<br>A Z D 9 8 2 4 4 1 2 6 3               |  | G. State Facility's ID                                   |  | H. Facility's Phone<br>602-669-5758   |  |
| 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)<br>RQ, Hazardous Waste Solid, N.O.S. (Benzene), 9,<br>NA 3077, PG III (EPA D018) (ERG 31)   |  |   |  | 12. Containers<br>No. Type<br>8 0 D M 2 1 2 0 0 P        |  | 13. Total Quantity<br>D018  |  |
| 14. Additional Descriptions for Materials Listed Above<br>a. Spent carbon containing benzene, Profile No. 930409 RH  |  |   |  | K. Handling Codes for Wastes Listed Above                |  |   |  |
| 15. Special Handling Instructions and Additional Information<br>Dike and contain any spills and avoid contact with skin. Please contact Randy L. Borne at (504) 656-3297 in case of an emergency.  |  |   |  |  |  |   |  |
| 16. GENERATOR'S CERTIFICATION: <small>Hazardous waste generators must certify that they are fully responsible for the proper shipping, handling, and disposal of hazardous waste. They must also certify that they are not aware of any illegal activities related to the waste. Generators must also certify that they are not aware of any illegal activities related to the waste. Generators must also certify that they are not aware of any illegal activities related to the waste.</small> |  |   |  |  |  |   |  |
| Printed/Typed Name<br>Randy L. Borne   |  |   |  | Signature<br><i>Randy L. Borne</i>                       |  | Month Day Year<br>10/6/17/93  |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials<br>Printed/Typed Name<br>Scott J Kammerer  |  |   |  | Signature<br><i>Scott J Kammerer</i>                     |  | Month Day Year<br>10/6/17/93  |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials<br>Printed/Typed Name  |  |   |  | Signature  |  | Month Day Year  |  |
| 19. Discrepancy Indication Space   |  |   |  |  |  |   |  |
| 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19<br>Printed/Typed Name<br>Jeffrey S. Walsh   |  |   |  |  |  |   |  |
| Signature<br><i>Jeffrey S. Walsh</i>   |  |   |  | Month Day Year<br>10/6/17/93                             |  |   |  |

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504-925-6595 (DAY OR NIGHT)

Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 6 / 22 / 93

Page Number: 1 of 2

1. GENERATOR INFORMATION

A. Generator: B.P. Oil Alliance B. Approval Number: 930409RH

C. Street: 23 S. Belle D. City: Caassa E. State: CA F. Zip: 70037

G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER LAA 3181741

A. DOT description: RQ, Hazardous Waste Solid, N.O.S. (Benzene), 9, NA 3077, PG III (EPA D018) (RG 31) Spent Carbon.

B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Ray De Leon

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph | Ignitability | Visual Particle Size | Hardness | Appearance        |
|---------------|--------------------|----------------|----|--------------|----------------------|----------|-------------------|
| 1             | 030622DM1-80       | v              | NL | POS          | 4x8                  | NL       | DRY, CLEAN, BLACK |
| 2             | 030622DM2-80       | v              |    | POS          |                      |          |                   |
| 3             | 030622DM3-80       | v              |    | POS          |                      |          |                   |
| 4             | 030622DM4-80       | v              |    | POS          |                      |          |                   |
| 5             | 030622DM5-80       | v              |    | POS          |                      |          |                   |
| 6             | 030622DM6-80       | v              |    | NEG          |                      |          |                   |
| 7             | 030622DM7-80       | v              |    | POS          |                      |          |                   |
| 8             | 030622DM8-80       | v              |    | POS          |                      |          |                   |
| 9             | 030622DM9-80       | v              | ✓  | NEG          | ✓                    | ✓        | ✓                 |

4. COMMENTS

WCAI Technician who performed this analysis: RLN Date: 06 / 22 / 93



Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 6 / 22 / 93

Page Number: 2 of 2

1. GENERATOR INFORMATION

A. Generator: B. P. Dil Alliance B. Approval Number: 930409RH

C. Street/Hwy 23 S. Belle D. City: Caassa E. State: Ca. F. Zip: 70037

G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER LAA 3181741

RQ, Hazardous Waste Solid, N.O.S. (Benzene), 9, NA 3077,  
A. DOT description: PG III (EPA D018) (RG) Spen Carbon.

B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Ray Deleon

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph | Ignitability | Visual Particle Size | Hardness | Appearance       |
|---------------|--------------------|----------------|----|--------------|----------------------|----------|------------------|
| 10            | 030622DM10-80      | v              | NL | POS          | 4x8                  | NL       | PRY CLEAN, BLACK |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |
|               |                    |                |    |              |                      |          |                  |

4. COMMENTS

WCAI Technician who performed this analysis: [Signature]

Date: 06 / 22 / 93

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 6 / 22 / 93

Approval Number: 930409RH

Arrival Time: \_\_\_\_\_

Manifest Number: 3181741

Page: 1 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030622DM1-80       | 100          | clean      | X                  | warehouse        |
| 030622DM2-80       | 100          | clean      | X                  | warehouse        |
| 030622DM3-80       | 100          | clean      | X                  | warehouse        |
| 030622DM4-80       | 100          | clean      | X                  | warehouse        |
| 030622DM5-80       | 100          | clean      | X                  | warehouse        |
| 030622DM6-80       | 100          | clean      | X                  | warehouse        |
| 030622DM7-80       | 100          | clean      | X                  | warehouse        |
| 030622DM8-80       | 100          | clean      | X                  | warehouse        |
| 030622DM9-80       | 100          | clean      | X                  | warehouse        |
| 030622DM10-80      | 100          | clean      | X                  | warehouse        |
| 030622DM11-80      | 100          | clean      |                    | warehouse        |
| 030622DM12-80      | 100          | clean      |                    | warehouse        |
| 030622DM13-80      | 100          | clean      |                    | warehouse        |
| 030622DM14-80      | 100          | clean      |                    | warehouse        |
| 030622DM15-80      | 100          | clean      |                    | warehouse        |
| 030622DM16-80      | 100          | clean      |                    | warehouse        |
| 030622DM17-80      | 100          | clean      |                    | warehouse        |
| 030622DM18-80      | 100          | clean      |                    | warehouse        |
| 030622DM19-80      | 100          | clean      |                    | warehouse        |
| 030622DM20-80      | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 6 / 22 / 93

Approval Number: 930409RH

Arrival Time: \_\_\_\_\_

Manifest Number: 3181741

Page: 2 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030622DM21-80      | 100          | clean      |                    | warehouse        |
| 030622DM22-80      | 100          | clean      |                    | warehouse        |
| 030622DM23-80      | 100          | clean      |                    | warehouse        |
| 030622DM24-80      | 100          | clean      |                    | warehouse        |
| 030622DM25-80      | 100          | clean      |                    | warehouse        |
| 030622DM26-80      | 100          | clean      |                    | warehouse        |
| 030622DM27-80      | 100          | clean      |                    | warehouse        |
| 030622DM28-80      | 100          | clean      |                    | warehouse        |
| 030622DM29-80      | 100          | clean      |                    | warehouse        |
| 030622DM30-80      | 100          | clean      |                    | warehouse        |
| 030622DM31-80      | 100          | clean      |                    | warehouse        |
| 030622DM32-80      | 100          | clean      |                    | warehouse        |
| 030622DM33-80      | 100          | clean      |                    | warehouse        |
| 030622DM34-80      | 100          | clean      |                    | warehouse        |
| 030622DM35-80      | 100          | clean      |                    | warehouse        |
| 030622DM36-80      | 100          | clean      |                    | warehouse        |
| 030622DM37-80      | 100          | clean      |                    | warehouse        |
| 030622DM38-80      | 100          | clean      |                    | warehouse        |
| 030622DM39-80      | 100          | clean      |                    | warehouse        |
| 030622DM40-80      | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 6 / 22 / 93

Approval Number: 930409RH

Arrival Time: \_\_\_\_\_

Manifest Number: 3181741

Page: 3 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030622DM41-80      | 100          | clean      |                    | warehouse        |
| 030622DM42-80      | 100          | clean      |                    | warehouse        |
| 030622DM43-80      | 100          | clean      |                    | warehouse        |
| 030622DM44-80      | 100          | clean      |                    | warehouse        |
| 030622DM45-80      | 100          | clean      |                    | warehouse        |
| 030622DM46-80      | 100          | clean      |                    | warehouse        |
| 030622DM47-80      | 100          | clean      |                    | warehouse        |
| 030622DM48-80      | 100          | clean      |                    | warehouse        |
| 030622DM49-80      | 100          | clean      |                    | warehouse        |
| 030622DM50-80      | 100          | clean      |                    | warehouse        |
| 030622DM51-80      | 100          | clean      |                    | warehouse        |
| 030622DM52-80      | 100          | clean      |                    | warehouse        |
| 030622DM53-80      | 100          | clean      |                    | warehouse        |
| 030622DM54-80      | 100          | clean      |                    | warehouse        |
| 030622DM55-80      | 100          | clean      |                    | warehouse        |
| 030622DM56-80      | 100          | clean      |                    | warehouse        |
| 030622DM57-80      | 100          | clean      |                    | warehouse        |
| 030622DM58-80      | 100          | clean      |                    | warehouse        |
| 030622DM59-80      | 100          | clean      |                    | warehouse        |
| 030622DM60-80      | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 6 / 22 / 93

Approval Number: 930409RH

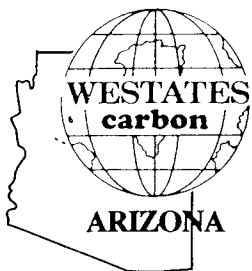
Arrival Time: \_\_\_\_\_

Manifest Number: 3181741

Page: 4 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030622DM61-80      | 100          | clean      |                    | warehouse        |
| 030622DM62-80      | 100          | clean      |                    | warehouse        |
| 030622DM63-80      | 100          | clean      |                    | warehouse        |
| 030622DM64-80      | 100          | clean      |                    | warehouse        |
| 030622DM65-80      | 100          | clean      |                    | warehouse        |
| 030622DM66-80      | 100          | clean      |                    | warehouse        |
| 030622DM67-80      | 100          | clean      |                    | warehouse        |
| 030622DM68-80      | 100          | clean      |                    | warehouse        |
| 030622DM69-80      | 100          | clean      |                    | warehouse        |
| 030622DM70-80      | 100          | clean      |                    | warehouse        |
| 030622DM71-80      | 100          | clean      |                    | warehouse        |
| 030622DM72-80      | 100          | clean      |                    | warehouse        |
| 030622DM73-80      | 100          | clean      |                    | warehouse        |
| 030622DM74-80      | 100          | clean      |                    | warehouse        |
| 030622DM75-80      | 100          | clean      |                    | warehouse        |
| 030622DM76-80      | 100          | clean      |                    | warehouse        |
| 030622DM77-80      | 100          | clean      |                    | warehouse        |
| 030622DM78-80      | 100          | clean      |                    | warehouse        |
| 030622DM79-80      | 100          | clean      |                    | warehouse        |
| 030622DM80-80      | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

AUG 13 1993

Mr. Randy Borne  
H.S.E. Technician  
**B.P. OIL ALLIANCE REFINERY**  
P.O. Box 395  
Belle Chasse, LA 70037

**RE: HIGHWAY 23 SOUTH, BELLE HASSE, LOUISIANA**

Dear Mr. Borne:

Enclosed is the appropriate copy of the Hazardous Waste Manifest resulting in the transfer of recyclable material by **B.P. OIL ALLIANCE REFINERY** to Westates Carbon-Arizona TSDF and the transportation of this material to the Parker, Arizona facility.

Sincerely,

Jeffrey S. Walsh  
Environmental Health & Safety Manager

Enclosure

cc: file

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
HAZARDOUS WASTE DIVISION  
P.O. BOX 82178  
BATON ROUGE, LOUISIANA 70884-2178

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved: OMB No. 2050-0039. Expires 9-30-92

| UNIFORM HAZARDOUS WASTE MANIFEST  |  | 1. Generator's US EPA ID No.<br>L A D 0 5 6 0 2 4 3 9 1 0 0 0 |  | Manifest Document No. |                                    | 2. Page 1<br>1 of 1                                      |  | Information in the shaded areas is not required by Federal law. |  |                              |  |               |  |  |
|---|--|---|--|-----------------------|------------------------------------|--|--|---|--|------------------------------|--|---------------|--|--|
| 3. Generator's Name and Mailing Address<br>BP Oil - Alliance Refinery<br>P.O. Box 395<br>Belle Chasse, La. 70037  |  |   |  |                       |                                    | A. State Manifest Document Number<br><b>LA A 3181742</b> |  |   |  |                              |  |               |  |  |
| 4. Generator's Phone ( 504 ) 656-7711   |  |   |  |                       |                                    | B. State Generator's ID<br>056024391000                  |  |   |  |                              |  |               |  |  |
| 5. Transporter 1 Company Name<br>Triad Transport  |  |   |  |                       |                                    | C. State Transporter's ID<br>00KID981588791              |  |   |  |                              |  |               |  |  |
| 6. US EPA ID Number<br>00KID981588791   |  |   |  |                       |                                    | D. Transporter's Phone 800-324-1139                      |  |   |  |                              |  |               |  |  |
| 7. Transporter 2 Company Name   |  |   |  |                       |                                    | E. State Transporter's ID                                |  |   |  |                              |  |               |  |  |
| 8. US EPA ID Number   |  |   |  |                       |                                    | F. Transporter's Phone                                   |  |   |  |                              |  |               |  |  |
| 9. Designated Facility Name and Site Address<br>Westates Carbon - Arizona, Inc.<br>2523 Muta Har<br>Parker, AZ 85344  |  |   |  |                       |                                    | G. State Facility's ID                                   |  |   |  |                              |  |               |  |  |
| 10. US EPA ID Number<br>AZD982441265  |  |   |  |                       |                                    | H. Facility's Phone<br>602-669-5758                      |  |   |  |                              |  |               |  |  |
| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)  |  |   |  |                       |                                    | 12. Containers<br>No. Type                               |  | 13. Total<br>Quantity   |  | 14. Unit<br>Wt/Vol           |  | 15. Waste No. |  |  |
| a. RQ, Hazardous Waste Solid, N.O.S. (Benzene), 9,<br>NA 3077, DG III (EPA D018) (ERG 31)   |  |   |  |                       |                                    | 8 0 D M 2 1 2 0 0 P                                      |  |   |  |                              |  | D018          |  |  |
| b.  |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| c.  |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| d.  |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| J. Additional Descriptions for Materials Listed Above<br>a. Spent carbon containing benzene, Profile No. 9930409 RH   |  |   |  |                       |                                    | K. Handling Codes for Wastes Listed Above<br>01-01       |  |   |  |                              |  |               |  |  |
| 15. Special Handling Instructions and Additional Information<br>Dike and contain any spills and avoid contact with skin. Please contact Randy L. Borne at (504) 656-3297 in case of an emergency.   |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.<br>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimize the present and future threat to human health and the environment. OR, If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| Printed/Typed Name<br>Randy L. Borne  |  |   |  |                       | Signature<br><i>Randy L. Borne</i> |  |  |   |  | Month Day Year<br>10/6/24/93 |  |               |  |  |
| 17. Transporter 1 Acknowledgement of Receipt of Materials<br>Printed/Typed Name<br>JOE NELSON   |  |   |  |                       | Signature<br><i>Joe Nelson</i>     |  |  |   |  | Month Day Year<br>10/6/25/93 |  |               |  |  |
| 18. Transporter 2 Acknowledgement of Receipt of Materials<br>Printed/Typed Name   |  |   |  |                       | Signature                          |  |  |   |  | Month Day Year               |  |               |  |  |
| 19. Discrepancy Indication Space<br>1. Manifest Document Number should be 5 digits  |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19<br>Printed/Typed Name<br>RAY E. Nelson  |  |   |  |                       |                                    |  |  |   |  |                              |  |               |  |  |
| Signature<br><i>Ray E. Nelson</i>   |  |   |  |                       | Month Day Year<br>10/6/25/93       |  |  |   |  |                              |  |               |  |  |

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504/925-6595 (DAY OR NIGHT)

GENERATOR

TRANSPORTER

FACILITY

Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 7 / 1 / 93

Page Number: 1 of 2

1. GENERATOR INFORMATION

A. Generator: B.P. Oil Alliance B. Approval Number: 930409RH  
C. Street: 23 S. Belle D. City: Caassa E. State: CA F. Zip: 70037  
G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER

A. DOT description: RQ, Hazardous Waste Solid, N.O.S. (benzene), 9, NA 3077, PGIII (EPA D018) (RG 31) Spent Carbon.  
B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Ray De Leon

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph  | Ignitability | Visual Particle Size | Hardness | Appearance    |
|---------------|--------------------|----------------|-----|--------------|----------------------|----------|---------------|
| 1             | 030701DM1-80       | v              | N/R | pos.         | 4x8                  |          | 4x8 clean     |
| 2             | 030701DM2-80       | v              | N/R | pos.         | 4x8                  |          | clean         |
| 3             | 030701DM3-80       | v              | N/R | pos.         | 4x8                  |          | clean         |
| 4             | 030701DM4-80       | v              | N/R | neg.         | 4x8                  |          | clean         |
| 5             | 030701DM5-80       | Px             | N/R | pos.         | 4mm                  |          | pellets clean |
| 6             | 030701DM6-80       | v              | N/R | pos.         | 4x8                  |          | clean         |
| 7             | 030701DM7-80       | v              | N/R | neg.         | 4x8                  |          | clean         |
| 8             | 030701DM8-80       | v              | N/R | neg.         | 4x8                  |          | clean         |
| 9             | 030701DM9-80       | v              | N/R | pos.         | 4x8                  |          | clean         |

4. COMMENTS

Please NOTE: carbon was profiled for a vapor  
phase cc-691

WCAI Technician who performed this analysis: [Signature]

Date: 7/1/93



Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 7 / 1 / 93

Page Number:     of 2

1. GENERATOR INFORMATION

A. Generator: B.P. Oil Alliance B. Approval Number: 930409RH  
C. Street: 23 S. Belle D. City: Caassa E. State: CA F. Zip: 70037  
G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER

A. DOT description: RQ, Hazardous Waste Solid, N.O.S. (benzene), 9, NA 3077, PGIII (EPA D018) (RG 31) Spent Carbon.  
B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Ray De Leon

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph  | Ignitability | Visual Particle Size | Hardness | Appearance    |
|---------------|--------------------|----------------|-----|--------------|----------------------|----------|---------------|
| 10            | 030701DM10-80      | P              | n/r | pos          | 4mm                  |          | pellets clean |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |
|               |                    |                |     |              |                      |          |               |

4. COMMENTS

WCAI Technician who performed this analysis: [Signature] Date: 7 / 1 / 93

PLEASE NOTE: This carbon is profiled for a vapor phase 4x8 cc-601.

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

**Generator:** B.P. Oil Alliance

**Date Received:** 7 / 1 / 93

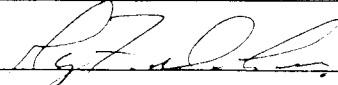
**Approval Number:** 930409RH

**Arrival Time:** 12:20p.m.

**Manifest Number:** \_\_\_\_\_

**Page:** 1 of 4

| Waste Tally Number | Percent Full | Appearance          | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|---------------------|--------------------|------------------|
| 030701DM1-80       | 100          | clean               | x                  | warehouse        |
| 030701DM2-80       | 100          | clean               | x                  | warehouse        |
| 030701DM3-80       | 100          | clean               | x                  | warehouse        |
| 030701DM4-80       | 100          | clean               | x                  | warehouse        |
| 030701DM5-80       | 100          | clean, 4mm, pellets | x                  | warehouse        |
| 030701DM6-80       | 100          | clean               | x                  | warehouse        |
| 030701DM7-80       | 100          | clean               | x                  | warehouse        |
| 030701DM8-80       | 100          | clean               | x                  | warehouse        |
| 030701DM9-80       | 100          | clean               | x                  | warehouse        |
| 030701DM10-80      | 100          | clean, 4mm, pellets | x                  | warehouse        |
| 030701DM11-80      | 100          | clean               |                    | warehouse        |
| 030701DM12-80      | 100          | clean               |                    | warehouse        |
| 030701DM13-80      | 100          | clean               |                    | warehouse        |
| 030701DM14-80      | 100          | clean               |                    | warehouse        |
| 030701DM15-80      | 100          | clean               |                    | warehouse        |
| 030701DM16-80      | 100          | clean               |                    | warehouse        |
| 030701DM17-80      | 100          | clean               |                    | warehouse        |
| 030701DM18-80      | 100          | clean               |                    | warehouse        |
| 030701DM19-80      | 100          | clean               |                    | warehouse        |
| 030701DM20-80      | 100          | clean               |                    | warehouse        |

**Receiving Employee:** 

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 7 / 1 / 93

Approval Number: 930409RH

Arrival Time: 12:20 p.m.

Manifest Number: \_\_\_\_\_

Page: 2 of 4

| Waste Tally Number | Percent Full | Appearance          | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|---------------------|--------------------|------------------|
| 030701DM21-80      | 100          | clean               |                    | warehouse        |
| 030701DM22-80      | 100          | clean               |                    | warehouse        |
| 030701DM23-80      | 100          | clean               |                    | warehouse        |
| 030701DM24-80      | 100          | clean, 4mm, pellets |                    | warehouse        |
| 030701DM25-80      | 100          | clean               |                    | warehouse        |
| 030701DM26-80      | 100          | clean               |                    | warehouse        |
| 030701DM27-80      | 100          | clean               |                    | warehouse        |
| 030701DM28-80      | 100          | clean               |                    | warehouse        |
| 030701DM29-80      | 100          | clean               |                    | warehouse        |
| 030701DM30-80      | 100          | clean               |                    | warehouse        |
| 030701DM31-80      | 100          | clean               |                    | warehouse        |
| 030701DM32-80      | 100          | clean               |                    | warehouse        |
| 030701DM33-80      | 100          | clean               |                    | warehouse        |
| 030701DM34-80      | 100          | clean               |                    | warehouse        |
| 030701DM35-80      | 100          | clean               |                    | warehouse        |
| 030701DM36-80      | 100          | clean               |                    | warehouse        |
| 030701DM37-80      | 100          | clean               |                    | warehouse        |
| 030701DM38-80      | 100          | clean               |                    | warehouse        |
| 030701DM39-80      | 100          | clean               |                    | warehouse        |
| 030701DM40-80      | 100          | clean               |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 7 / 1 / 93

Approval Number: 930409RH

Arrival Time: 12:20 p.m.

Manifest Number: \_\_\_\_\_

Page: 3 of 4

| Waste Tally Number | Percent Full | Appearance          | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|---------------------|--------------------|------------------|
| 030701DM41-80      | 100          | clean               |                    | warehouse        |
| 030701DM42-80      | 100          | clean               |                    | warehouse        |
| 030701DM43-80      | 100          | clean               |                    | warehouse        |
| 030701DM44-80      | 100          | clean               |                    | warehouse        |
| 030701DM45-80      | 100          | clean               |                    | warehouse        |
| 030701DM46-80      | 100          | clean               |                    | warehouse        |
| 030701DM47-80      | 100          | clean               |                    | warehouse        |
| 030701DM48-80      | 100          | clean, 4mm, pellets |                    | warehouse        |
| 030701DM49-80      | 100          | clean               |                    | warehouse        |
| 030701DM50-80      | 100          | clean               |                    | warehouse        |
| 030701DM51-80      | 100          | clean               |                    | warehouse        |
| 030701DM52-80      | 100          | clean               |                    | warehouse        |
| 030701DM53-80      | 100          | clean               |                    | warehouse        |
| 030701DM54-80      | 100          | clean               |                    | warehouse        |
| 030701DM55-80      | 100          | clean               |                    | warehouse        |
| 030701DM56-80      | 100          | clean, 4mm, pellets |                    | warehouse        |
| 030701DM57-80      | 100          | clean               |                    | warehouse        |
| 030701DM58-80      | 100          | clean               |                    | warehouse        |
| 030701DM59-80      | 100          | clean               |                    | warehouse        |
| 030701DM60-80      | 100          | clean               |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

**Generator:** B.P. Oil Alliance

**Date Received:** 7 / 1 / 93

**Approval Number:** 930409RH

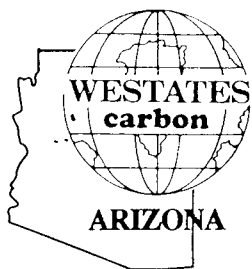
**Arrival Time:** 12:20 p.m.

**Manifest Number:** \_\_\_\_\_

**Page:** 4 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030701DM61-80      | 100          | clean      |                    | warehouse        |
| 030701DM62-80      | 100          | clean      |                    | warehouse        |
| 030701DM63-80      | 100          | clean      |                    | warehouse        |
| 030701DM64-80      | 100          | clean      |                    | warehouse        |
| 030701DM65-80      | 100          | clean      |                    | warehouse        |
| 030701DM66-80      | 100          | clean      |                    | warehouse        |
| 030701DM67-80      | 100          | clean      |                    | warehouse        |
| 030701DM68-80      | 100          | clean      |                    | warehouse        |
| 030701DM69-80      | 100          | clean      |                    | warehouse        |
| 030701DM70-80      | 100          | clean      |                    | warehouse        |
| 030701DM71-80      | 100          | clean      |                    | warehouse        |
| 030701DM72-80      | 100          | clean      |                    | warehouse        |
| 030701DM73-80      | 100          | clean      |                    | warehouse        |
| 030701DM74-80      | 100          | clean      |                    | warehouse        |
| 030701DM75-80      | 100          | clean      |                    | warehouse        |
| 030701DM76-80      | 100          | clean      |                    | warehouse        |
| 030701DM77-80      | 100          | clean      |                    | warehouse        |
| 030701DM78-80      | 100          | clean      |                    | warehouse        |
| 030701DM79-80      | 100          | clean      |                    | warehouse        |
| 030701DM80-80      | 100          | clean      |                    | warehouse        |

**Receiving Employee:** Ray De Leon



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

AUG 13 1993

B. P. OIL ALLIANCE REFINERY  
P.O. Box 395  
Belle Chasse, LA 70037

RE: Highway 23 South, Belle Hasse, Louisiana

To Whom It May Concern:

Enclosed is the appropriate copy of the Hazardous Waste Manifest resulting in the transfer of recyclable material by B.P. OIL ALLIANCE REFINERY to Westates Carbon-Arizona TSDF and the transportation of this material to the Parker, Arizona facility.

Sincerely,

Jeffrey S. Walsh  
Environmental Health & Safety Manager

Enclosure

cc: File

JW/jm

## PLEASE PRINT OR TYPE Form designed for use on slide (16 mm) typewriter

|   |  |                                     |  |  |  |   |  |
|---|--|-------------------------------------|--|--|--|---|--|
| UNIFORM HAZARDOUS WASTE MANIFEST  |  | L A D 0 5 6 0 2 4 3 9 1 1 0 0 0 5 2 |  | 1 1  |  | 1 |  |
| Generator's Name and Mailing Address<br>BP Oil Company<br>P.O. Box 395<br>Belle Chasse, La. 70037<br>Generator's ID: 504 656-7711   |  |                                     |  | A. State Manifest Document Number<br><b>LA A 3181736</b><br>B. State Generator ID  |  |   |  |
| Transporter's Name and Address<br>Triad Transport<br>10 K D 9 8 1 5 8 8 7 9 1   |  |                                     |  | C. State Transporter ID<br>D. Transporter's Phone: 800-324-1139  |  |   |  |
| Facility's Name and Address<br>WESTATES CARBON - ARIZONA, INC.<br>2523 Mutahar Street<br>Parker, AZ. 85344<br>A Z D 9 8 2 4 4 1 2 6 3   |  |                                     |  | E. State Transporter's ID<br>F. Transporter's Phone<br>G. State Facility ID<br>H. Facility's Phone: 602-669-5758   |  |   |  |
| 1. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>RQ, HAZARDOUS WASTE: SOLID, NOS<br>(BENZENE), 9, NA 3077, PG III (LPA D018)  |  |                                     |  | 2. Quantity and Packaging<br>3. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>4. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>5. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>6. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>7. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>8. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>9. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label<br>10. U.S. DOT Hazardous Waste Substance Name, Hazard Class, and DOT Label |  |   |  |
| 11. Additional Information on the Materials Listed Above<br>a. Spent carbon containing benzene,<br>PROFILE NO. 930409 RH  |  |                                     |  | b. Handling Conditions for Wastes Listed Above<br>07-01  |  |   |  |
| 12. Special Instructions, Precautions, and Safety Information<br>Dike and contain any spills and avoid contact with skin. Please contact Randy L. Borne at (504) 656-3297 in case of an emergency.                      |  |                                     |  |  |  |   |  |
| 16. GENERATOR'S CERTIFICATION:<br>I, the undersigned, certify that the information provided on this manifest is true and correct to the best of my knowledge and belief.<br>Signature: Randy L. Borne<br>Date: 10/11/93 |  |                                     |  |  |  |   |  |
| 17. Transporter's Acknowledgment of Receipt of Materials<br>Printed Type Name: Joe Nelson<br>Signature: Joe Nelson<br>Date: 10/11/93  |  |                                     |  | 18. Transporter's Acknowledgment of Receipt of Materials<br>Printed Type Name: Joe Nelson<br>Signature: Joe Nelson<br>Date: 10/11/93   |  |   |  |
| 19. Facility Owner or Operator's Certification of Receipt of Hazardous Materials Covered by this Manifest<br>Printed Type Name: Randy L. Borne<br>Signature: Randy L. Borne<br>Date: 10/11/93                           |  |                                     |  |  |  |   |  |

F SPILLED IN LOUISIANA. CALL THE COMPANY MAZMAT UNIT AT 504 925-6595 (DAY OR NIGHT)

Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 7 / 19 / 93

Page Number: 1 of 2

1. GENERATOR INFORMATION

A. Generator: B.P. Oil Alliance B. Approval Number: 930409RH  
C. Street: 23 S. Belle D. City: Caassa E. State: CA F. Zip: 70037  
G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER LA A 3181736

A. DOT description: RO HAZARODUS WASTE SOLID, NOS (BENZENE), 9, NA 3077, PG (EPAD018)  
B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Curtis Laird

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph  | Ignitability | Visual Particle Size | Hardness | Appearance        |
|---------------|--------------------|----------------|-----|--------------|----------------------|----------|-------------------|
| 1             | 030719DM1-80       | v              | NOL | NEG          | 4x8                  | NOL      | DRY, CLEAN, BLACK |
| 2             | 030719DM2-80       | v              |     | POS          |                      |          |                   |
| 3             | 030719DM3-80       | v              |     | NEG          |                      |          |                   |
| 4             | 030719DM4-80       | v              |     | NEG          |                      |          |                   |
| 5             | 030719DM5-80       | v              |     | NEG          |                      |          |                   |
| 6             | 030719DM6-80       | v              |     | POS          |                      |          |                   |
| 7             | 030719DM7-80       | v              |     | NEG          |                      |          |                   |
| 8             | 030719DM8-80       |                |     | NEG          |                      |          |                   |
| 9             | 030719DM9-80       | v              | ↓   | NEG          | ↓                    | ↓        | ↓                 |

4. COMMENTS

WCAI Technician who performed this analysis: *[Signature]* Date: 07, 19, 93



Westates Carbon-Arizona, Inc.  
ANALYSIS LOG

Date Received: 7 / 19 / 93

Page Number: 2 of 2

1. GENERATOR INFORMATION

A. Generator: B.P. Oil Alliance B. Approval Number: 930409RH  
C. Street: 23 S. Belle D. City: Caassa E. State: CA F. Zip: 70037  
G. Contact: Randy Borne H. Telephone number: 504-656-3352

2. BILL OF LADING OR MANIFEST NUMBER LA A 3181736

A. DOT description: RQ, HAZARDOUS WASTE SOLID, NOS (BENZENE), 9, NA 3077, PGIII (EPA D018)  
B. Total containers received: 80 BA BK CM DM HP (circle one)

3. SAMPLE AND ANALYSIS INFORMATION

A. Total samples taken: 10 B. Samples taken by: Curtis Laird

C. Analysis Chart:

| Sample Number | Waste Tally Number | Type of Carbon | ph  | Ignitability | Visual Particle Size | Hardness | Appearance        |
|---------------|--------------------|----------------|-----|--------------|----------------------|----------|-------------------|
| 10            | 030719DM10-80      | V              | NRL | POS          | 4x8                  | NRL      | DRY, CLEAN, BLACK |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |
|               |                    |                |     |              |                      |          |                   |

4. COMMENTS

WCAI Technician who performed this analysis: *[Signature]* Date: 07/19/93

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

**Generator:** B.P. Oil Alliance

**Date Received:** 7 / 19 / 93

**Approval Number:** 930409RH

**Arrival Time:** 7:00 a.m.

**Manifest Number:** LA A 3181736

**Page:** 1 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030719DM 1 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 2 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 3 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 4 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 5 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 6 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 7 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 8 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 9 -80     | 100          | clean      | X                  | warehouse        |
| 030719DM 10 -80    | 100          | clean      | X                  | warehouse        |
| 030719DM 11 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 12 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 13 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 14 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 15 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 16 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 17 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 18 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 19 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 20 -80    | 100          | clean      |                    | warehouse        |

**Receiving Employee:** Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 7 / 19 / 93

Approval Number: 930409RH

Arrival Time: 7:00 a.m.

Manifest Number: LA A 3181736

Page: 2 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030719DM 21-80     | 100          | clean      |                    | warehouse        |
| 030719DM 22-80     | 100          | clean      |                    | warehouse        |
| 030719DM 23-80     | 100          | clean      |                    | warehouse        |
| 030719DM 24-80     | 100          | clean      |                    | warehouse        |
| 030719DM 25-80     | 100          | clean      |                    | warehouse        |
| 030719DM 26-80     | 100          | clean      |                    | warehouse        |
| 030719DM 27-80     | 100          | clean      |                    | warehouse        |
| 030719DM 28-80     | 100          | clean      |                    | warehouse        |
| 030719DM 29-80     | 100          | clean      |                    | warehouse        |
| 030719DM 30-80     | 100          | clean      |                    | warehouse        |
| 030719DM 31-80     | 100          | clean      |                    | warehouse        |
| 030719DM 32-80     | 100          | clean      |                    | warehouse        |
| 030719DM 33-80     | 100          | clean      |                    | warehouse        |
| 030719DM 34-80     | 100          | clean      |                    | warehouse        |
| 030719DM 35-80     | 100          | clean      |                    | warehouse        |
| 030719DM 36-80     | 100          | clean      |                    | warehouse        |
| 030719DM 37-80     | 100          | clean      |                    | warehouse        |
| 030719DM 38-80     | 100          | clean      |                    | warehouse        |
| 030719DM 39-80     | 100          | clean      |                    | warehouse        |
| 030719DM 40-80     | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

**Generator:** B.P. Oil Alliance

**Date Received:** 7 / 19 / 93

**Approval Number:** 930409RH

**Arrival Time:** 7:00 a.m.

**Manifest Number:** LA A 3181736

**Page:** 3 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030719DM 41-80     | 100          | clean      |                    | warehouse        |
| 030719DM 42-80     | 100          | clean      |                    | warehouse        |
| 030719DM 43-80     | 100          | clean      |                    | warehouse        |
| 030719DM 44-80     | 100          | clean      |                    | warehouse        |
| 030719DM 45-80     | 100          | clean      |                    | warehouse        |
| 030719DM 46-80     | 100          | clean      |                    | warehouse        |
| 030719DM 47-80     | 100          | clean      |                    | warehouse        |
| 030719DM 48-80     | 100          | clean      |                    | warehouse        |
| 030719DM 49-80     | 100          | clean      |                    | warehouse        |
| 030719DM 50-80     | 100          | clean      |                    | warehouse        |
| 030719DM 51-80     | 100          | clean      |                    | warehouse        |
| 030719DM 52-80     | 100          | clean      |                    | warehouse        |
| 030719DM 53-80     | 100          | clean      |                    | warehouse        |
| 030719DM 54-80     | 100          | clean      |                    | warehouse        |
| 030719DM 55-80     | 100          | clean      |                    | warehouse        |
| 030719DM 56-80     | 100          | clean      |                    | warehouse        |
| 030719DM 57-80     | 100          | clean      |                    | warehouse        |
| 030719DM 58-80     | 100          | clean      |                    | warehouse        |
| 030719DM 59-80     | 100          | clean      |                    | warehouse        |
| 030719DM 60-80     | 100          | clean      |                    | warehouse        |

**Receiving Employee:** Ray De Leon

**Westates Carbon-Arizona, Inc.**  
**INCOMING HAZARDOUS WASTE TALLY SHEET**

Generator: B.P. Oil Alliance

Date Received: 7 / 19 / 93

Approval Number: 930409RH

Arrival Time: 7:00 a.m.

Manifest Number: LA A 3181736

Page: 4 of 4

| Waste Tally Number | Percent Full | Appearance | Sampled (X if Yes) | Storage Location |
|--------------------|--------------|------------|--------------------|------------------|
| 030719DM 61 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 62 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 63 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 64 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 65 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 66 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 67 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 68 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 69 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 70 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 71 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 72 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 73 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 74 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 75 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 76 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 77 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 78 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 79 -80    | 100          | clean      |                    | warehouse        |
| 030719DM 80 -80    | 100          | clean      |                    | warehouse        |

Receiving Employee: Ray De Leon

UNIFORM HAZARDOUS  
WASTE MANIFEST

1. Generator's US EPA ID No. MS D05417940360002

Manifest  
Document No.

2. Page 1 of 1 Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

CHEVRON TUSA PRODUCTS CO.  
HWY 611 SOUTH, PASADENA, MS 39581

4. Generator's Phone (601) 938-4257 OR 4258

A. State Manifest Document Number

N/A

B. State Generator's ID

N/A

5. Transporter 1 Company Name

LAIDLAW ENVIRONMENTAL SERVICE TX D988023305

6. US EPA ID Number

C. State Transporter's ID N/A

D. Transporter's Phone (713) 998-7350

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

WESTATES CARBON ARIZONA INC.

2523 MOUNTAIN ST.

PARKER, ARIZONA 85344

10. US EPA ID Number

AZ D982441263

G. State Facility's ID

N/A

H. Facility's Phone

(602) 669-5758

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

No.

Type

13. Total  
Quantity14. Unit  
Wt/Vol

15. Waste No.

a. RQ, HAZARDOUS WASTE SOLID, N.O.S.  
✓ (BENZENE CONTAMINATED CARBON, NESHA'S  
WASTE), 9, NA-3077, PG. III

9

TP

297  
Cubic Ft.

P

D018

b. RQ HAZARDOUS WASTE SOLID, N.O.S.  
✓ (BENZENE CONTAMINATED CARBON,  
NESHA'S WASTE), 9, NA-3077, PG. III

8

DM

42.4  
Cubic  
Ft.

P

D018

J. Additional Descriptions for Materials Listed Above

VSC-1200 SERIAL NO. 0141308

0141737

0145826

0145355

0141847

0145817

0141856

0151070

0133770

K. Handling Codes for Wastes Listed Above

02-01

15. Special Handling Instructions and Additional Information

IN CASE OF EMERGENCY OR SPILL CALL THE NATIONAL RESPONSE  
CENTER AT 1-800-424-8802 AND FOLLOW INSTRUCTIONS IN DOT  
RESPONSE GUIDE, REF. NO. 3116. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified,  
packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically  
practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimized the present and future threat to human health  
and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation, and select the best waste management method that is  
available to me and that I can afford.

Printed Typed Name

MEG TAYLOR

Signature

M. E. Taylor

Month Day Year

07/19/93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Typed Name

J. M. DEAN

Signature

Jim Dean

Month Day Year

7/19/93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed Typed Name

RAY F. DELON

Signature

Ray F. Delon

Month Day Year

07/27/93

Post-It™ brand fax transmittal memo 7671

# of pages &gt; 1

|                             |                               |
|-----------------------------|-------------------------------|
| To <i>Jeff Walsh</i>        | From <i>Lynn Hammons</i>      |
| Co. <i>Westates</i>         | Co. <i>Chewron</i>            |
| Dept.                       | Phone # <i>(601) 938-4257</i> |
| Fax # <i>(602) 669-5775</i> | Fax # <i>(601) 938-4238</i>   |

August 23, 1993

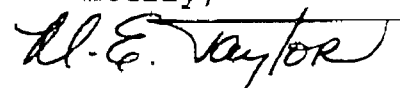
Westates Carbon-Arizona, Inc.  
2523 Mutahar St.  
Parker, Arizona 85344

Mr. Jeff Walsh,

A load of spent carbon was shipped to Westates on July 19, 1993 and 2 of the portable tanks contained 4mm pellitized activated carbon. The other 7 were 4x8 granular carbon, please note that both carbons came from the same waste stream.

I apologize for the oversight, and if you have any questions please call me at (601) 938-4941.

Sincerely,



Meg Taylor

met/

cc: Lynn Hammons  
John Leech  
Mark Bailey

Attachment 1



# RUST ENGINEERING COMPANY

RUST AND QUALITY—A Company and a Commitment sm

July 26, 1993

P.O. Box 25374  
Portland, Oregon 97225-0374  
15400 NW Greenbrier Parkway  
Beaverton, Oregon 97006  
(503) 645-5022  
FAX (503) 645-9401

Mr. Monte McCue  
Plant Manager  
Westates Carbon Inc.  
2523 Mutahar  
Parker, Arizona 85344

Subject: Tank Inspection and Certification Per 40 CFR

Dear Mr. McCue:

Thank you for the opportunity to provide an estimate for tank inspection services at your Parker, Arizona facilities. RUST Engineering has performed the same type of work on similar tanks for sister companies at various locations.

As indicated in your conversation with our Mr. Bart Makadia, you would like to have eleven (11) existing tanks inspected and certified for compliance with the requirements of 40 CFR Part 265, Subpart J.

It is our understanding that these tanks cannot be inspected from the inside during our site visit due to operating conditions.

RUST will provide necessary safety equipment including: shoes, ear and eye protection, safety harness, respirator, chemical protective clothing, ultrasonic testing equipment, and O.V.M. monitor as required.

For this project, RUST will perform the following tasks:

- Review Westates Carbon's tank safety, and operating manuals
- Visual inspection of outside shell and heads
- Ultrasonic testing of outside shell and heads
- Develop code calculations
- Write inspection reports per 40 CFR requirements
- One site visit for five days for one RUST employee

Mr. Monte McCue

July 26, 1993

Page two

Westates Carbon will provide, for safety reasons, the following if required:

- All lock-out procedures written prior to commencement of work
- One plant safety watch personnel as support, as required
- Non-conductive ladders and/or other access as required
- L.E.L./O2 analyzer
- Air exhaust blower

Based on the deliverables listed herein and our understanding of the scope of services, we estimate the cost to be \$17,440.00, which includes salaries, overhead, benefits, and expenses. It is assumed that the drawings and calculations for the subject tanks are not available. RUST proposes to perform the work on a lump sum basis utilizing the attached *Technical Services Contract*.

Note: RUST's proposal does not include witness of tank rework if required.

During this project, our Mr. Bart Makadia will coordinate and/or perform the services. Bart is a registered professional engineer in the state of Arizona and has performed similar work on other projects. Bart is available to do the work immediately as you have requested.

We look forward to working with Westates Carbon on this team project. Please contact me if we can provide any additional information.

Sincerely,

RUST ENGINEERING COMPANY



James A. Wright  
Manager, Business Development  
Industrial Division  
(503) 690-3727  
(503) 690-3829 Fax

/jlb  
Attachments

# GENERAL TERMS AND CONDITIONS TECHNICAL SERVICE CONTRACT

**INTRODUCTION:** These general terms and conditions are applicable to the engineering services to be performed by RUST International Corporation (hereinafter termed "RUST") and generally apply to the services of one or more engineers or technicians performing engineering and/or consulting services in or for a Client's office, plant or other facility referred to on the face of this contract.

**SCOPE OF SERVICES:** The scope of services to be performed under this agreement shall be as set forth on page one (1) hereof. Client may add to or delete services from the scope of service and the provisions of this contract shall apply to such changes. In the event of any such change or any delay, change or occurrence beyond the control of RUST, RUST shall be entitled to an equitable adjustment of RUST's compensation and schedule.

**COMPENSATION AND PAYMENT:** Compensation for RUST's services hereunder shall be as set forth on page one (1) hereof. RUST shall invoice the Client monthly for the services performed and Client shall pay such invoice in full within ten (10) days of the receipt thereof.

**CHARGES FOR THE WORK:** If the services hereunder are to be performed on a cost reimbursable basis. Client shall reimburse RUST for all costs, charges, expenses, taxes, fees, and losses which are not compensated by insurance, which are incurred by RUST in the performance of the work hereunder. There shall include, but are not limited to:

1. Charges for the time of all personnel employed by RUST in the performance of the Work plus a fixed charge of N/A of the time charges to cover Federal and State payroll taxed and insurance, and company benefit programs and overhead and profit.
2. Transportation, traveling, hotel and living expenses, including use of employees' personal cars at RUST's current standard rates. All reasonable moving, relocation, travel and living expenses incurred in connection with assignment of RUST's permanent personnel to a location other than RUST's permanent offices and from such location at the conclusion of assignment.
3. Miscellaneous expenses including, but not limited to, telegrams, telex, telephone service, postage, and similar miscellaneous items incurred in connection with Work (all at RUST's current standard rates).
4. Reproduction costs of all drawings, manuals, specifications and other documents required for the Work; costs of a record set of sepia, microfilms or similar reproductions for RUST's retention; and cost for the use of computer. All such costs shall be a RUST's current standard rates or at actual costs to Engineer if prepared by others.
5. Costs of special materials and supplies required for the performance of the Work.
6. Cost of soil investigations, tests, laboratory fees and any special consultants who may be employed by RUST.
7. Cost of any permits, fees, licenses or royalties required for the Work. Costs of any sales, use or similar taxes or fees now or hereafter imposed by a Federal, State, Municipal or other government or agency thereof.
8. Fees, costs, damages or disbursements incurred in connection with any labor, patent or commercial litigation or any third party claim, suit or cause of action, arising out of or in connection with the performance of this Contract by RUST (except disputes between RUST and Client), or claims, suits or causes of action pursued on behalf of Client by RUST.
9. Premiums and brokerage fees on all bonds, and insurance policies which may be required by Client in addition to those listed herein, and any losses under the deductible features of any insurance policies whether furnished by RUST or Client.

**AUDITING:** For a period of one (1) year following completion of the Work hereunder. Client, his auditor, or other authorized representatives shall be afforded access at reasonable times to RUST's accounting records relating to the Work set forth herein in order to audit all Charges for the Work (except fixed charges and RUST's standard rates).

**LIABILITY INSURANCE:** During the performance of the Contract, RUST shall keep in force Workmen's Compensation Insurance/Employer's Liability Insurance for its employees within the limits required by law; Comprehensive General Liability Insurance with a \$1,000,000 combined occurrence bodily injury and property damage limit and \$3,000,000 combined aggregate bodily injury and property damage limit; and Automobile Liability Insurance, with a combined single limit of \$1,000,000.

**WAIVER OF SUBROGATION:** Client does hereby waive all rights and any subrogation rights such as it or its insurers may have against RUST, its employees, agents, officers, directors and any of its affiliated or associated companies, for any losses or damages, including without limitation, loss of use and all consequential damages thereof, to its existing plant or other property including without limit property to be incorporated into the Work or Project, resulting from any and all risks and losses however and whenever arising including without limit the losses, damages and risks of fire, or other extended coverage or similar perils, business interruption, transit damages or losses, vandalism and malicious mischief, or other risks covered under a broad form, All Risks Difference in Conditions insurance policy. In the event that the constructor of the facilities or Project, which are the subject of this Contract, is to carry insurance on the Project, the Client agrees to include a provision in its contract with the constructor requiring the constructor to supply RUST with a written waiver of its rights of recovery and its insurance carrier's right of subrogation against RUST.

## LIMITED WARRANTY:

1. RUST warrants that the engineering services performed hereunder will be in accordance with accepted professional engineering standards and practices existing as of the date that such services are performed. RUST's sole liability for any defective Work shall be to reperform the item of defective Work, written notice of which is promptly given by Client to RUST within a period of one (1) year from the date that the engineering performed hereunder is released by RUST. All costs of such reperforming shall be reimbursed by Client to RUST.
2. RUST shall not be responsible for the construction means, method, techniques, sequences, or procedures, or safety precautions (including OSHA compliance) and programs incident thereto; nor for the acts or omissions of Client or any constructor or any of the constructor's agents, employees or subcontractors; nor for the acts or omissions of material or equipment manufacturers or suppliers; nor for the acts or omissions of any other engineer.
3. THERE ARE NO REMEDIES, LIABILITIES, OR WARRANTIES OTHER THAN THE ABOVE, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE, APPLICABLE TO THE WORK OR ENGINEER'S SERVICES UNDER OR OTHERWISE ARISING OUT OF THIS CONTRACT.

**WAIVER OF CONSEQUENTIAL DAMAGES:** Whether due to delay, breach of contract or warranty, negligence, or any other causes, RUST shall not be liable for any special, indirect, or consequential damages of any nature, including, without limitation, Client's loss of actual or anticipated profits or revenue, loss by reason of shutdown, nonoperation, or increased expense of manufacturing or operation, or for any costs, labor, or materials required for reconstruction or repairs.

## COMPLIANCE WITH LAW:

1. RUST shall comply with all laws and regulations existing as of the date hereof applicable to RUST in the performance of its obligations under this Contract, including without limitation applicable Federal, State and local wage and hour laws and regulations, and all other laws and regulations pertaining to employer-employee relations.
2. It is recognized that laws and regulations governing the emissions of gases, odor, liquids, solids, and sounds are or may be changing from time to time, and RUST shall not have any responsibility or obligation thereto other than assisting Client in obtaining approvals of the governmental bodies or boards. Any modifications of or addition to the Project which may be required after the effective date of this Contract in order to cause the Project to comply with any applicable law or regulation pertaining to the control or emission of gases, odor, liquids, solids or sound shall be considered a change in the Work and the applicable adjustment therefor shall be accomplished.

**GOVERNING LAW:** The terms of this agreement shall be construed and interpreted under, and all respective rights and duties of the parties shall be governed by, the laws of the State of Alabama.

**TERMINATION:** Client or RUST may terminate this agreement at any time for any reason, provided that a ten (10) day written notice of termination is given to the other party, and RUST will be reimbursed by Client for all charges and costs incurred to date together with those associated with the cessation of RUST's services hereunder, plus RUST's fee earned to the date of termination. Upon termination of this agreement, Client will assume all obligations and commitments that RUST has incurred in connection with the Work under this agreement.

**NO OTHER AGREEMENTS:** All negotiations, proposals and agreements prior to the date of this Contract are merged herein and superseded hereby, there being no agreements, warranties, liabilities (negligence or otherwise) or understandings other than those written or specified herein. This Contract constitutes the entire agreement between the parties and the terms and conditions hereof were negotiated between the parties on an arms-length basis and no obligation or covenant of good faith or fair dealing shall be implied or interpreted as conferring upon either party any right, duty, obligation or benefit other than expressly set forth herein, notwithstanding the fact that certain of the terms and conditions hereof may give either party discretion in the manner of performance under this Contract. No changes, modifications or amendments to this agreement shall be valid unless agreed to by the parties in writing and signed by their authorized officers. This Contract shall not be construed as granting any rights to any third party based on the theory of third party beneficiary or otherwise.

TECHNICAL SERVICE CONTRACT  
RUST INTERNATIONAL CORPORATION (DELAWARE)

This contract is made between RUST International Corporation (Delaware), hereinafter termed "RUST" and WESTATES CARBON, INC. hereinafter termed "Client." Client hereby accepts performance of the work outlined under "Scope of RUST's Services" in accordance with the General Terms and Conditions set forth on the reverse side hereof.

ARTICLE I - SCOPE OF RUST'S SERVICES

A. RUST shall furnish engineering services consisting of tank inspection and certification in accordance with RUST's letter proposal dated 7/26/93.

(Hereinafter the "Work").

B. RUST services shall be performed at RUST's Portland office and Westates Carbon's Parker, Arizona site.

ARTICLE II - RUST'S COMPENSATION

Client shall pay RUST for the services provided hereunder, as follows: (Specify basis of compensation - cost plus percentage fee, cost plus fixed fee, or lump sum - if cost plus, the reimbursable costs are listed on the reverse side.

Lump sum cost of \$17,440.

ARTICLE III - ACCEPTANCE

Client and RUST hereby agree to accept the Scope of RUST's Services and RUST's compensation set forth above in accordance with the General Terms and Conditions on the reverse side hereof. Acceptance of this offer by ordering start of the services or otherwise is limited to acceptance of the terms and conditions herein. Notwithstanding any additional terms that may be embodied in Client's purchase order or acknowledgement issued in response to this offer, the Work is performed only on the condition that Client assents to the terms and conditions set forth herein and objection is hereby made to any varying or additional terms and conditions contained in Client's purchase order or acknowledgement.

Client

RUST INTERNATIONAL CORPORATION (DELAWARE)

\_\_\_\_\_  
Signature, Authorized Representative

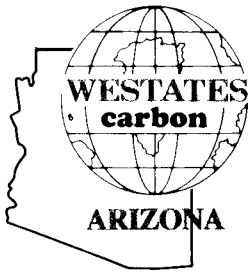
\_\_\_\_\_  
Signature, Authorized Representative

\_\_\_\_\_  
Name, Title

Thomas A. Robicheaux, Mgr., N.W. Operations  
\_\_\_\_\_  
Name, Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

September 3, 1993  
Via Federal Express

Amy Sokolov  
Hazardous Waste Management Division  
U.S. Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, CA 94105-3901

RE: Westates Carbon - Arizona, Inc.  
Site inspection of Carbon Regeneration Facility

Dear Ms. Sokolov:

I am writing to provide you with our preliminary responses to several of the items we discussed during the closing conference you conducted at our facility following your inspection on August 17, 1993.

Westates and its parent company, Wheelabrator Technologies Inc., operate under a philosophy that places compliance with environmental regulations at the very top of our list of priorities. We have attempted to establish site expertise and management systems that will allow us to operate our facility in continuous compliance with all regulatory obligations.

We therefore view any compliance matter as a serious one and have attempted to carefully address every item that we discussed during our closing conference on August 17 in a manner that will both ensure continuous compliance and address your other concerns.

As an initial matter, you indicated during the closing conference that your compliance inspection of our facility would continue for several weeks after you left our site, during which time you would review various records that we provided to you. We found the opportunity to discuss issues with you on August 17 to be extremely valuable and this discussion also allowed us to immediately begin to address concerns that you expressed. Consequently, we would very much appreciate the opportunity to meet with you at your office in San Francisco at the conclusion of your records

review and prior to any formal response to discuss any additional issues that you may have identified. We would be happy to meet with you at any time that is convenient and I hope that you will call me to set up such a meeting if additional issues are identified.

The following is a brief discussion of our preliminary responses to the issues you raised during our closing conference and the initial measures we have adopted to satisfy the concerns raised by your agency. We did not agree in every case that the issues you identified constituted compliance concerns, but in each case we have attempted to take action consistent with our goal to operate in both continuous compliance and in an environmentally protective and safe manner.

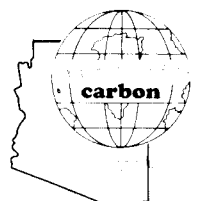
1. Issue: The maximum capacity of the facility under its Part A application is 1200 lbs per hour. It is not clear what method should be used to properly measure facility capacity.

We understand from our discussion on August 17 that this issue does not raise a compliance concern, but is important with respect to the expansion proposal that Westates is currently discussing with Region IX. We have asked our technical staff to address this concern and I understand that they will be contacting Ray Fox, of the Region IX Alternative Technologies Section, shortly to discuss this issue further.

2. Issue: The facility is not monitoring waste feed, auxiliary fuel feed and carbon monoxide every 15 minutes under 40 CFR 26.377(a)(1).

40 CFR 266.377(a)(1) provides that "Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every 15 minutes. ... Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, ... and relevant process flow and level controls." (Emphasis supplied). The final background document published by EPA discussing this regulatory requirement very clearly states that no capital expenditures must be made by facilities to conduct the monitoring specified because "only existing, in-place equipment and instruments must be inspected." (Final background document, Pages 17, 42 & 45, copy attached). Consequently, an interim status facility subject to Subpart P is required to monitor only existing equipment under Section 265.377.

- A. The facility does not have existing equipment in place to monitor waste feed. Currently, the facility employs a manual process that involves the manual removal of waste, manual weighing of waste and manual calculation of the feed rate. There are no instruments in place at the facility to conduct these tasks. If you believe that the installation of



equipment capable of monitoring feed rate would be beneficial to the facility, we would be happy to discuss this with you further.

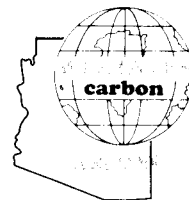
- B. The facility does not have existing equipment in place to monitor auxiliary fuel feed. There is a natural gas meter that is manually read by facility personnel, but this meter measures total gas usage at the facility, not the quantity of fuel that is fed exclusively to the facility's thermal treatment unit. In addition to this thermal treatment unit, the facility has a natural gas fired steam boiler and this boiler is not separately metered. The facility does continuously monitor temperature within the thermal destruction unit, which we believe is important to determine destruction efficiency and is an effective surrogate for auxiliary fuel usage monitoring. However, we do not believe that fuel usage is relevant to the determination of destruction efficiency and for this reason we have not independently installed a separate meter to monitor gas usage. If you believe that the installation of equipment capable of monitoring gas usage by a thermal destruction unit would be beneficial, we would be happy to discuss this with you further.
- C. The facility does not have existing equipment in place to monitor carbon monoxide. We have manually collected carbon monoxide readings from our stack to judge operational performance, however this process involves carrying a portable meter to the top of our stack structure on a periodic basis and does not involve the monitoring of existing equipment at the facility. Prior to your visit to the facility, in an effort to upgrade facility systems, we decided to install carbon monoxide and oxygen continuous emission monitoring systems in order to more accurately verify destruction efficiency. These systems have been ordered and we expect them to be on-site and ready for installation by the end of this month.

3. Issue: Three drums exhibited signs of corrosion around the outlet bungs.

We carefully inspected each of the identified drums and, while we did observe a film of crystals by the bottom bung holes on each drum, we observed no signs of leakage or structural deficiencies. However, to be certain that all drums in use are in good condition at all times, we have retrained all employees conducting daily drum inspections to watch for early signs of potential corrosion, particularly around the outlet bung areas.

4. Issue: One drum on site was labeled as oversized carbon but actually contained carbon from a sump clean out.

In response to this issue, we have revised our procedure for managing wastes



generated on site. A copy of this new policy is attached for your review. Under the new procedure, when operators generate wastes, these wastes will be placed in drums, labeled and brought to a holding area. Our lead warehouse person will then double check the label and contents of every drum to verify accurate labeling prior to placing that drum into the designated storage area. Additionally, to ensure that all wastes generated and stored on site are appropriately labeled, we have reinventoried all of these drums.

5. Issue: Fugitive emissions were observed coming from a dewatering screw.

As we discussed during your visit to our facility, we had recently developed a concern about the existing manual system of regulating unit pressure and we had commenced plans to install an automatic system, which will include a number of system improvements, including a larger induced draft fan. We anticipate that we will complete installation of this new system by the end of this month.

6. Issue: Integrity tests should have been completed on all hazardous waste storage tanks before they were put in use.

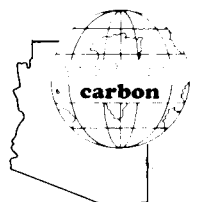
As we discussed during your visit to our facility, we had recently discovered this same issue and just prior to your visit we obtained a bid to have the work conducted. We have accepted a bid proposal as of this date and testing is anticipated during the week of September 13.

7. Issue: Waste obtained from the recycle water tank was labeled as D018 and should probably have been labeled with all listed waste codes that have come in contact with that waste.

The subject waste is spent carbon that separates from the recycle water system over time and is temporarily stored before reintroduction to the waste treatment system. All such spent carbon is placed back into our treatment system and is treated on site. In the future, any containers storing such wastes will be labeled with all necessary waste codes.

8. Issue: The Baker tank is not labeled as containing a hazardous waste.

It occurred to us after our closing conference on August 17 that we may have left you with a mistaken impression that the Baker tank contained only precipitation run-off. The majority of water in this tank is precipitation run-off, however, on two occasions scrubber water and recycle water were added to the tank. We apologize if there was some confusion on this matter. As we discussed on August 17, we manage this tank in a protective manner, as if it





were a hazardous waste, but we will be reusing the contents of the tank as recycle water in our thermal treatment process. Because of an unusually heavy rainfall during the past year, we have collected more precipitation run-off than anticipated and, as a result, we have stored this water on site for reuse. In the last two months we have used nearly 6,000 gallons of precipitation run-off for recycle water make-up and we anticipate drawing down the contents of the Baker tank over the next several months. Both precipitation run-off and scrubber water are perfectly suited for use as recycle water at our facility, whether alone or in combination, and replace municipal water, which we would otherwise be required to purchase.

The contents of the Baker tank are therefore being used or reused as ingredients in an industrial process to make a product, without first being reclaimed, and they are also being used or reused as effective substitutes for commercial products. Under 40 CFR 261.3, this tank holds a material that is not a solid waste, and therefore is not a hazardous waste. Consequently, the tank should not be labeled as containing a hazardous waste. We have and will continue to manage this tank and its contents in a protective manner, but we do not believe that it should be labeled as you suggested. We would be happy to discuss this issue further with you if you think it is warranted.

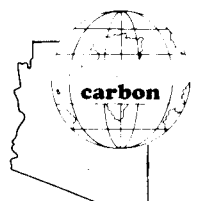
9. Issue: Cracks were observed in the concrete pad in the process area.

As we discussed during your visit to our facility, we were in the process of determining the best method for sealing these cracks when you arrived. We have begun sealing the cracks using hand grinders and sealant and we are in the process of developing an official inspection program so that future cracks are sealed as soon as they appear. We are also looking for a long term solution to this problem that will likely involve the application of a new surface to coat the entire containment pad.

10. Issue: Acids were observed being stored with caustics.

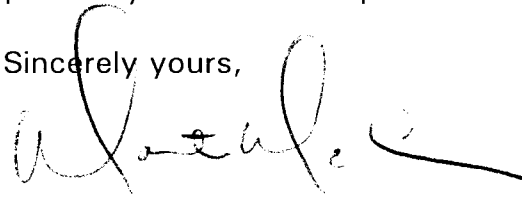
As we discussed during your visit to our facility, this issue did not pose a compliance concern under RCRA. However, we believe that worker health and safety are extremely important and we have treated this issue accordingly. The facility now has designated marked storage areas for acids and caustics to ensure that they are at all times stored separately and we have reemphasized proper chemical handling and safety procedures to all of our employees involved in handling these chemicals.

We appreciate the opportunity to respond to these issues and we hope that you will contact us with any questions or further thoughts about the actions we have implemented or have planned in the near future.



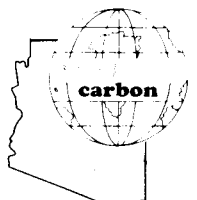
Additionally, as mentioned above, we hope that you will provide us with the opportunity to meet with you to discuss any additional issues of concern as you complete your review of facility records and prior to your official response.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Monte McCue', written over the 'Sincerely yours,' text.

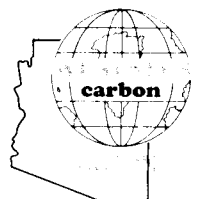
Monte McCue  
Plant Manager

MM:dk  
S:55



Attachment A

Background Document



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is less clear than this  
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RESOURCE CONSERVATION AND RECOVERY ACT  
SUBTITLE C - HAZARDOUS WASTE MANAGEMENT  
SECTION 3004 - STANDARDS APPLICABLE TO OWNERS AND OPERATORS  
OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

FINAL  
BACKGROUND DOCUMENT

40 CFR PART 265  
SUBPART P INTERIM STATUS STANDARDS FOR HAZARDOUS WASTE  
FACILITIES FOR THERMAL TREATMENT  
PROCESSES OTHER THAN INCINERATION  
AND FOR OPEN BURNING

ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF SOLID WASTE

APRIL 1980

D1-030

13333

## TABLE OF CONTENTS

|  | <u>Page</u> |
|--|-------------|
| I. INTRODUCTION  | 1           |
| A. Need For Thermal Treatment Interim Status Standards                             | 1           |
| B. Key Definitions   | 4           |
| II. RATIONALE FOR THE REGULATIONS  | 6           |
| A. Statutory Authority   | 6           |
| B. Incidents Involving Improper Thermal Treatment                                  | 9           |
| C. The Experience Base for Thermal Treatment Regulations                           | 10          |
| D. Basis for the Interim Status Standards for Thermal Treatment                    | 14          |
| III. ANALYSIS OF AND RESPONSE TO COMMENTS RELEVANT TO THE INTERIM STATUS STANDARDS | 19          |
| <u>Issues:</u>   |             |
| #1 - General Issues: (1) Authority, (2) Performance Standards                      | 19          |
| #2 - Thermal Treatment Other than Incineration                                     | 25          |
| #3 - Allowance of Variances During Start-up Periods                                | 30          |
| #4 - Analysis of Wastes  | 33          |
| #5 - Instrument Monitoring and Facility Inspection                                 | 41          |
| #6 - Residue Management  | 46          |
| #7 - Open Burning  | 50          |
| IV. TEXT OF INTERIM STATUS STANDARDS   | 52          |
| REFERENCES   | 59          |

D1-030

3334

Several States, including Missouri, Nevada, Tennessee, and South Carolina are currently in the process of proposing regulations covering hazardous waste thermal treatment or incineration facilities.

D. Basis for the Interim Status Standards for Thermal Treatment

Given the Congressional mandate to protect human health and the environment from inadequate hazardous waste treatment, storage, and disposal and the demonstrated problems associated with inadequate treatment via incineration, the Agency proposed regulations for hazardous waste incinerators and chemical, physical, and biological treatment on December 18, 1978. These proposed regulations included permanent status standards and very limited interim status standards for chemical, physical, and biological treatment. Interim status standards are applicable during the period of time between submittal of an application for a permit and the granting of a permit.

The Agency has determined that it is important to bring some additional control over incineration and other thermal treatment by promulgating additional interim status standards. This Background Document and the associated regulations are limited to those regulations, which are to be in effect during the interim status period. Regulations covering the permanent status period, the period after permitting, will be issued in the next few months. At that time the complex technical questions raised by commenters will be addressed.

For its interim status standards (ISS), the Agency is mandating those requirements which: (1) can reasonably be implemented by the regulated community within the six-month period between promulgation and the effective date of the regulations; (2) do not require large capital expense for items which require approval and, thus, might be altered as part of the permitting process; and (3) can be implemented directly by the regulated community with the need for minimal consultation with or interpretation by the Agency. The rationale for these decision criteria is discussed in more depth in the Background Document entitled "Purpose, Scope and Applicability." It should be understood, however, that the Agency used the criteria only as guidance in deciding which standards to require during interim status. They are not hard-and-fast rules. The Agency has gone beyond these guidelines where it appeared justified and may do so in the future.

For thermal treatment processes, the proposed incinerator technical performance and design requirements do not meet these criteria and, thus, cannot be implemented during interim status. The time required and the costs of conducting trial burns and upgrading most existing facilities will be considerable, and the designs will require Agency approval during the permitting process. Technical performance and design requirements were not proposed for thermal treatment processes other than for incinerators. The Agency has, however, developed general operating standards for thermal

treatment that meet the criteria for interim status standards and can be implemented during the interim status period. These have been designed primarily to improve operating procedures, i.e., to eliminate the careless and sloppy practices which have resulted in serious problems in the past.

Specifically, requirement §265.373 that the thermal treatment unit be brought to its steady state operating condition before hazardous wastes are introduced meets ISS criteria because: (1) no EPA approval or interpretation is required, (2) any capital expenditures necessary to install auxiliary fuel capability are not likely to be the topic of disagreement during permitting activities, and (3) it can be implemented with little lead time needed to obtain and install equipment.

The requirement of §265.375 that the owner or operator must sufficiently analyze any waste which he has not previously treated in his thermal treatment process to enable him to establish steady state (normal) or other appropriate conditions and to determine the type of pollutants which might be emitted: (1) can be implemented with no EPA involvement, since the sampling and analytical procedures at this time are largely left to the owner/ operator; (2) can commence as soon as any necessary testing equipment is delivered; and (3) requires only limited (and necessary) expense for the purpose of procuring testing equipment (if not already available).



The requirement of §276.377 for instrument monitoring and control and stack plume inspections: (1) can be initiated by thermal treatment process operators immediately, (2) requires no interpretation by the Agency, and (3) requires no capital expenditures, since only existing, in-place equipment and instruments must be inspected.

The requirement of §265.381 that hazardous waste and hazardous residues (including sludge, ash) be removed from the incinerator at closure, will be incorporated as part of the closure plan required by Subpart G (closure and post-closure) to be prepared during interim status. This will be subject to Agency review and approval before it is implemented. Implementation of these requirements will not be necessary until closure but they may require significant expenditures. These rules are being promulgated despite the interim status criteria because of the importance the Agency places on proper closure. For further discussion on this issue, see the Background Document on Closure and Post-closure.

The requirement of §265.382 prohibiting open burning except for the open burning and detonation of waste explosives (1) can be implemented within the six-month period between promulgation and the effective date of the regulations; (2) does not require large capital expense for items which require approval and (3) requires no EPA interpretation.

A commenter suggested that the proposed incinerator permanent status standards for trial burns and operational emissions monitoring be made applicable during the interim status

period. Since such requirements do not meet any of the interim status criteria (as outlined above), the Agency has not added them to the interim status requirements. However, a requirement that waste be burned only at proper operating temperature is consistent with these criteria and will prevent incomplete treatment of hazardous waste. Thus, the requirement for preheating to proper operating conditions for other than non-continuous (batch) processes was added to these interim status standards.

## Issue #5 Instrument Monitoring and Facility Inspection

### A. Synopsis of the Proposed Regulation

During both incinerator trial and operating burns, the following parameters (§250.45-1(c)) were to be monitored and recorded:

1. combustion temperature
2. exhaust gas CO and O<sub>2</sub> concentrations continuously, and
3. waste, fuel, and excess air feed at least every 15 minutes.

These requirements were not proposed for the interim status period.

### B. Summary of Comments

1. New equipment to monitor gas emissions (particularly CO) would be expensive.
2. 15-minute inspection of waste flows is unnecessarily rigorous.
3. Points of measurement are unclear.
4. NO<sub>x</sub>, SO<sub>x</sub>, CO<sub>2</sub> should be added to the list of monitored effluents. One commenter suggested they be included during interim status.

### C. Analysis of and Response to Comments and Rationale for the Final Regulation

The Agency believes it unwise, during the interim status period to require specific monitoring equipment, (such as the proposed continuous oxygen and carbon monoxide instrumentation for incineration), for other thermal treatment processes. The first commenter is correct: this equipment is expensive and complex.<sup>26</sup> The design of these systems and their sampling locations will be the subject of

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Agency review during the permit process and, thus, it is unwise to require their installation before that interaction can take place. Also lead time on purchase of this equipment can be lengthy. For similar reasons, the Agency does not believe that NO<sub>x</sub>, SO<sub>x</sub>, and CO<sub>2</sub> measurements should be required for thermal treatment during interim status.

At this time, however, it appears that some of the benefits of monitoring and inspecting can be realized simply by requiring that thermal treatment and emission control monitoring equipment already in place be monitored on a regular basis and that appropriate follow-up actions be taken. This will ensure that, within the design limitations of the existing equipment, the thermal treatment and emission control conditions will not be allowed to wander unmonitored and uncontrolled. It also seems reasonable and prudent to set up routine inspection schedules to observe visible emissions from the stack; monitor for fugitive emissions, odors, or smoke; and to look for leaks, spills, and inoperative alarm and control systems. As discussed in the Background Document covering inspections, routine inspections can often detect a malfunction or operator error before it leads to a human health or environmental incident. The omission of these requirements in the proposed interim status standards was an oversight on the part of the Agency.

EPA disagrees with the comment that a 15-minute inspection frequency for waste flow is unnecessarily rigorous. The instruments (or other devices) which measure the thermal

treatment conditions (e.g., temperature) should be monitored and corrections made as often as possible, continuously and automatically where possible. The relevant control points on which the thermal treatment conditions depend in most processes include waste feed rate and auxiliary energy supply (e.g., fuel, microwave energy). Variations in any of these, or in the heating value of either the waste or the auxiliary energy supply, can quickly lead to poor conditions for waste destruction and to emission of incompletely destroyed wastes. Some incinerators already have some of these control loops (temperature via auxiliary fuel flow, for example) operating on a continuous basis.<sup>18</sup> The Agency encourages such continuous control but feels that those controls and, even more importantly any manual control loops (where the operator makes the correction), be monitored or inspected at least every 15 minutes.

No specific data base can demonstrate the wisdom of the precise 15-minute frequency. It is based on the Agency's generalized engineering expertise and the specific knowledge of thermal treatment operations gained in the 1975 and 1976 testing. In some cases, where thermal treatment conditions are subject to rapid swings, arguments can be made that more frequent (near continuous) monitoring and control are needed. This is, however, a facility specific situation and depends on instrument and process design parameters, such as the effectiveness of the instrumentation and the response period once control changes are made. Thus, it is more appropriately treated during the permitting process. Therefore, in deve-

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loping the inspection schedule required in §265.15, more frequent monitoring and control activities should be conducted where appropriate (see the Inspection Background Document for discussion of Inspection schedule development).

The 15-minute schedule is a minimum. The Agency believes that control loops which affect thermal treatment conditions should not be allowed to wander out of control for longer than that period of time. Even where automatic control is installed, it is necessary to check the instrumentation to ensure that it is functioning. The 15-minute minimum ensures that improper conditions do not persist for longer than that period. The Agency feels similarly about existing control loops which might effect emissions or which could result in spills if out of control. These could vary, depending on the design of the equipment.

All of these inspections are to be part of the Inspection Schedule called for in Section 265.15, and significant results are to be recorded in accordance with the provisions of that section. Additionally, stack emissions (if such emissions exist) should be monitored hourly and the entire facility inspected at least daily for leaks, spills, fugitive emissions, odors, and smoke. All of these discharges can result in human health or environmental impacts if not detected early. Control system alarms must also be inspected daily to be sure they are functioning.

Again, no body of information can specifically support any given frequency. Based on its own experience, however,

D 1-030

with incinerator and other thermal treatment process tests, the Agency believes that inspections at these frequencies will uncover problems in time to prevent serious incidents. Further, the cost impact of conducting these inspections is expected to be small, given the fact that an operator must be on duty to run an incinerator anyway. For further discussion of the rationale for routine inspections, the reader is referred to the Background Document on Inspections.

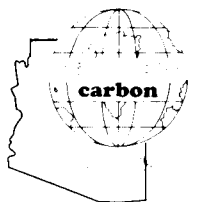
D. Final Interim Status Regulations (§265.377)

During interim status, operators are required to routinely monitor and make appropriate corrections to the control equipment already installed. Similarly, in accordance with the inspection schedule provisions of §265.15 and the other sections dealing with facility standards (landfills, tanks, etc.), routine inspections for malfunctions, spills, etc., are being required during the interim status period. Specifically, as part of the inspection schedule, operators must monitor:

1. existing (in place) thermal treatment process and emission control instruments and make appropriate corrections, to maintain steady state conditions, at least every 15 minutes,
2. stack plume, if a stack plume exists, for normal appearance (opacity and color) at least hourly,
3. the entire unit, daily, for leaks, spills, fugitive emissions, odors, and all emergency shutdown controls and system alarms to assure proper operation.

Attachment B

On Site Waste Management Policy





# INTERNAL DRUM LABELS AND INSPECTIONS

Effective immediately, this procedure will be implemented to label, stage and inspect drums used to accumulate waste in the plant. Wastes accumulated in the plant include the following:

1. Sump cleanup
2. Cleanup from a spill or cleaning an eductor
3. Spillage put in a drum from the dewater screw or furnace feed tank, etc.
4. Oversize from the screener
5. Lab samples
6. Filter press sludge
7. Gloves, boots, tools, clothes, etc., contaminated with hazardous waste

**Any** hazardous waste generated in the plant will be handled as follows:

1. Properly labeled with a hazardous waste label with accumulation date, contents, and the person filling the drum and placing it in storage.
2. The drum will then be put in a staging area on the spent side of the warehouse. If the drum is not properly labeled, the operator or "generator" will have to revise the label until it is acceptable. The lead warehouse person will be responsible for inspecting the label and assuring that the contents correspond with the label. **We will not have any material in the warehouse that is not properly labeled and stored.**

**Note:** If any questions arise as to what to label a material, contact Monte McCue or Jeff Walsh immediately.

**Any employee mislabeling, not labeling, or not storing hazardous material properly will be subject to disciplinary action up to, and including, termination.**

I acknowledge having been properly trained in labeling and storing procedures and understand the critical nature of the above procedures.

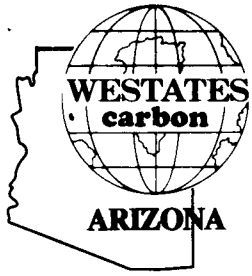
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Employee Signature

---

Date

Attachment 13



2523 MUTAHAR STREET • P.O. BOX E • PARKER, AZ 85344  
TELEPHONE (602) 669-5758 • FAX (602) 669-5775

*A Wheelabrator Technologies Company*

Amy Sokolov  
Environmental Protection Agency  
Environmental Protection Specialist  
Hazardous Waste Management Division  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Dear Ms. Sokolov:

This letter is in response to your requests in a letter received October 14, 1993.

- We have went through each of the 550+ profiles we have received since the facility commenced operations. We are 100% certain we have not received the waste codes K111, K124, and K062. These waste codes will be deleted when the revised Part A permit is submitted in the next week or two.
- Attached are the calculations for the secondary containment pad. We have calculations at the facility, but these were not done in the detail attached or stamped by a P.E.

I will be on vacation until October 25, 1993. If you have any questions or need more information, please contact Jeff Walsh at 602-669-5758.

Respectfully,

Mont McCue  
Plant Manager

OR JOB NO. 21-4812

FOR WESTATES CARBON

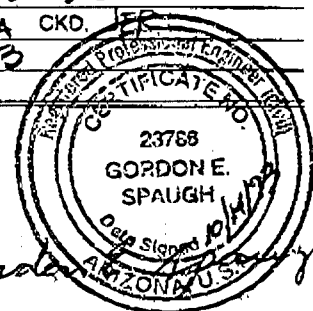
DATE 10-13-93

AT LOS ANGELES, CA.

BY ONARA CKD ER

DESCRIPTION CONTAINMENT PAD VOLUME CALCULATION

DWG. OF 3



**I. PAD "A" - EQUIPMENT AREA**

| PAD DEPTH (IN.) | AREA (FT <sup>2</sup> ) | AVG. AREA (FT <sup>2</sup> ) | Δ DEPTH (FT) | VOLUME (FT <sup>3</sup> ) |
|-----------------|-------------------------|------------------------------|--------------|---------------------------|
| 15              | 0                       | 185.6                        | 0.08         | 15.5                      |
| 14              | 371.2                   | 572.8                        | 0.08         | 47.7                      |
| 13              | 714.4                   | 969.6                        | 0.08         | 80.8                      |
| 12              | 1164.8                  | 1379.2                       | 0.08         | 114.9                     |
| 11              | 1593.6                  | 1859.2                       | 0.08         | 154.9                     |
| 10              | 2124.8                  | 2486.4                       | 0.08         | 207.2                     |
| 9               | 2848.0                  | 3248.0                       | 0.08         | 270.7                     |
| 8               | 3648.0                  | 4118.4                       | 0.08         | 343.2                     |
| 7               | 4588.8                  | 5171.2                       | 0.08         | 430.9                     |
| 6               | 5753.6                  | 6908.8                       | 0.13         | 863.6                     |
| 4 1/2           | 8064.0                  | 8064.0                       | 0.38         | 3024.0                    |
| 0               | 8064.0                  |                              |              |                           |
|                 |                         |                              |              | <b>5553.4</b>             |

LESS EQUIPMENT FOUNDATIONS AND STRUCTURAL PIERS - 200.0  
 (VOLUME ASSUMED BASED ON EQUIPMENT SIZES AND  
 FIELD MEASUREMENTS PER WESTATES CARBON)

TOTAL VOLUME = 5353.4  
 x 7.48

**40,043.4 GALS**

## RUST ENGINEERING COMPANY, PORTLAND, OREGON

PROPOSAL  
OR JOB NO. 21-4872

FOR WESTATES CARBON

DATE 10-13-93

AT LOS ANGELES, CA.

BY H. OWARA CKD. JER

DESCRIPTION CONTAINMENT PAD VOLUME CALCULATION

DWG. 2 OF 3

## 2. PAD "B" - TRUCK UNLOADING AREA

$$\text{- AVG. PAD DEPTH (IN.)} = 4\frac{5}{8}$$

$$\text{- PAD AREA} = 43.5' \times 78.5' = 3414.75 \text{ FT}^2$$

$$\text{- VOLUME} = \frac{4\frac{5}{8}}{12} \times 3414.75 = 1316.10 \text{ FT}^3 \times 7.48 = 9844.4 \text{ GALS.}$$

## 3. TOTAL CONTAINMENT VOLUME

$$V_T = 40,043.4 + 9844.4 = 49,887.8 \text{ GALS.}$$

## 4. RAINFALL VOLUME

$$\text{- 25 yr, 24 hr RAINFALL EVENT} = 2.45''$$

(PER WESTATES CARBON CALCULATION SHEET AND  
OFFICE OF CLIMATOLOGY IN TEMPE, AZ.)

$$\text{- PAD "A" VOLUME} = \frac{2.45}{12} \times 8064.0 = 1646.4 \text{ FT}^3$$

$$\text{- PAD "B" VOLUME} = \frac{2.45}{12} \times 3414.75 = 697.18 \text{ FT}^3$$

$$\text{- TOTAL RAINFALL VOLUME} = 1646.4 + 697.18 = 2343.6 \text{ FT}^3$$

$$\times 7.48$$

$$17,529.9 \text{ GALS.}$$

FOR WESTATES CARBON

DATE 10-13-03

AT LOS ANGELES, CA.

BY H. OWART CKD. JER

DESCRIPTION CONTAINMENT PAD VOLUME CALCULATION

DWG. 3 OF 3

## 5. CONTAINMENT REQUIREMENTS

- LARGEST TANK = 28,000 GALS  
(PER WESTATES CARBON CALCULATION SHEET)
- RAINFALL VOLUME = 17,520.0 GALS
- TOTAL CONTAINMENT VOLUME REQUIRED = 45,520.0 GALS
- ACTUAL = 40,887.8 GALS  
REQUIRED = 45,520.0 GALS

$$\Delta = 4,357.0 \text{ GALS (EXCESS CAPACITY.)}$$

Attachment 15

**CLOSURE PLAN  
WESTATES CARBON -ARIZONA, INC**

**2523 Mutahar Street  
Parker, Arizona 85344  
Phone: 602-669-5758**

***A WHEELABRATOR TECHNOLOGIES COMPANY***



## TABLE OF CONTENTS

|  |    |
|--|----|
| 1.0 INTRODUCTION . . . . .   | 1  |
| 2.0 SCOPE . . . . .  | 2  |
| 3.0 GUIDANCE DOCUMENTS . . . . .   | 3  |
| 4.0 FACILITY DESCRIPTION . . . . .   | 4  |
| 4.1 General Description . . . . .  | 4  |
| 4.2 Topographic Map . . . . .  | 4  |
| 4.3 Hazardous Waste Management Units . . . . .   | 4  |
| 4.4 Hydrogeologic Information . . . . .  | 4  |
| 4.5 Other Environmental Permits . . . . .  | 6  |
| 5.0 CLOSURE PROCEDURES . . . . .   | 9  |
| 5.1 Inventory of Waste at Time of Closure . . . . .  | 9  |
| 5.2 Procedures for Handling and Disposal of Waste Inventory . . . . .                                  | 9  |
| 5.2.1 Bulk Wastes . . . . .  | 9  |
| 5.2.2 Containerized Wastes . . . . .   | 9  |
| 5.3 Procedures for Decontamination and/or Disposal . . . . .   | 9  |
| 5.3.1 Goals and Intent of Decontamination and Closure . . . . .  | 9  |
| 5.3.2 Tanks and Equipment . . . . .  | 12 |
| 5.3.3 Soil and Pavement . . . . .  | 12 |
| 5.3.4 Potential for Airborne Emissions . . . . .   | 13 |
| 5.4 Site Security . . . . .  | 13 |
| 5.5 Closure Certification . . . . .  | 13 |
| 5.5.1 Certification Activities . . . . .   | 13 |
| 5.5.2 Criteria for Evaluating Adequacy . . . . .   | 14 |
| 5.5.3 Types of Documentation . . . . .   | 15 |
| 6.0 CLOSURE SCHEDULE . . . . .   | 17 |
| 6.1 Expected Date of Closure . . . . .   | 17 |
| 6.2 Frequency of Partial Closures . . . . .  | 17 |
| 6.3 Closure Milestones . . . . .   | 17 |
| 6.4 Requests For Extensions of Deadlines for Handling Inventory<br>and Completion of Closure . . . . . | 17 |

TABLE OF CONTENTS (continued)

7.0 REFERENCES ..... 19

ATTACHMENTS

1. Sampling and Analysis Plan -- RCRA Facility Closure
2. Site Safety Plan -- RCRA Facility Closure Investigation and Cleanup

## 1.0 INTRODUCTION

Westates Carbon operates a facility that reactivates non-hazardous and hazardous spent activated carbon at 2523 Mutahar Street, Parker, Arizona. The facility receives spent activated carbon contaminated with a variety of wastes, some of which are defined as hazardous wastes. The spent carbon is reactivated in specially designed furnaces and is stored and repackaged for subsequent reuse. The facility is currently permitted under federal regulations as an Interim Status Treatment Storage and Disposal (TSD) facility. The EPA identification number is AZD982441263.

This Closure Plan conforms to the U.S. EPA Closure Plan Checklist - Tank Storage and Treatment Systems, January, 1987 Draft and includes major elements required in the Clean Closure Guidance Manual for Hazardous Waste Management Units, EPA/530-SW-87-022. The Closure Plan includes all required activities for closure for the subject facility during Interim Status as prescribed in 40 CFR Part 265.

## 2.0 SCOPE

This Closure Plan covers activities related to eventual closure of the hazardous waste portion of the facility, including all Hazardous Waste Management Units (HWMUs) described in the facility's Part A application.

The plan includes closure activities required by 40 CFR Part 265, Subpart G. Activities associated with closure of the HWMUs will include treatment and/or removal of all hazardous waste inventory, decontamination of storage and treatment equipment and paved surfaces, sampling and analysis to insure that decontamination is adequate, and certification of adequate closure by a registered professional engineer.

### 3.0 GUIDANCE DOCUMENTS

This closure plan was prepared in accordance with the following guidance documents.

- Closure Plan Checklist, Tank Storage and Treatment Systems, U.S. Environmental Protection Agency, January, 1987 Draft.
- Clean Closure Guidance Manual for Hazardous Waste Management Units, EPA/530-SW-87-022, U.S. EPA Office of Solid Waste and Emergency Response, Washington, D.C., August, 1989.
- Soil Sampling Quality Assurance User's Guide, EPA-600/4-84-043, U.S. EPA Environmental Monitoring Systems Laboratory, Office of Research and Development, Las Vegas, Nevada, May, 1984.
- RCRA Guidance Manual for Subpart G Closure and Post Closure Care Standards and Subpart H Cost Estimating Requirements, U.S. EPA, Washington, D.C., January, 1987.
- Closure and Post Closure: 40 CFR Part 264, Subpart G, U.S. EPA, Washington, D.C.

## 4.0 FACILITY DESCRIPTION

### 4.1 General Description

The Westates Carbon facility is located at 2523 Mutahar Street in Parker, Arizona. A facility plan and a site location map are provided as Figure 4-1 and 4.2 respectively.

The facility is located in an area zoned for general manufacturing on a nearly level parcel of approximately 10 acres. The hazardous waste portion of the facility is surrounded by a fence with gates for vehicle and personnel access. An office trailer, a trailer containing the laboratory and a trailer containing the change room are located adjacent to the hazardous waste facility. These trailer facilities and parking lot are not included in the TSD facility.

The facility accepts spent activated carbon for treatment onsite. Spent carbon is stored in containers and in bulk quantities. The spent carbon is reactivated in a multiple hearth furnace (a second furnace is to be installed) which is defined as thermal treatment in 40 CFR Part 261. The reactivated carbon is screened, classified, and packaged. The product is stored to await shipment. Blowdown from a packed bed scrubber (part of the furnace air emissions control system) is discharged to the local publicly owned treatment works. No other industrial waste waters are generated. Solid residues which will consist of fine carbon particles are reintroduced into the system, therefore, no hazardous solid residues must be shipped off-site for treatment or disposal.

### 4.2 Topographic Map

A topographic map of the facility is included as Figure 4-3.

### 4.3 Hazardous Waste Management Units

A facility plan showing the locations of all hazardous waste management units and dimensions of secondary containment areas is presented as Figure 4-1. The unit processes, capacities, and capabilities of installed treatment and storage facilities are described in Table 5-1. Wastes handled in each hazardous waste management unit are summarized by type in Table 5-2.

### 4.4 Hydrogeologic Information

The area is characterized by roughly parallel mountain ranges separated by alluvial basins. The elevation of the basins varies between sea level and 1000 feet. The mountains are rugged and rise abruptly from the Colorado River or from alluvial slopes. The highest mountain summits in the region reach an average elevation of around 3300 feet. Between the Colorado River flood plain and the mountains are piedmont slopes, which are dissected by washes from the mountains

and, in a few exceptions, into adjacent and topographically distinct basins. The proposed facility will be located on relatively flat terrain (slopes 0-3 percent).

The Colorado River is the major stream in the area. The flood plain of the river is less than one mile wide near Parker, and increases to nine miles in the Parker Valley. The flood plain is that part of the Colorado River Valley that has been covered by floods of the Colorado River, prior to construction of Hoover Dam. The elevation of the flood plain near Parker is approximately 360 feet above sea level.

The geologic units considered important to water resources development at the Westates Carbon plant site are the Miocene Fanglomerate, the Bouse Formation and the alluvium of the Colorado River and its tributaries.

The rocks of the mountains are relatively impermeable, and form the boundaries of the groundwater reservoirs. Interbasin water movement is limited by the impermeable bedrock and limited to groundwater movement in surface sediments, where intermittent surface drainage exits from a basin.

The bedrock includes all rocks older than the Miocene Fanglomerate, and contains sedimentary, metamorphic, and igneous rocks. The Miocene beds are gravel deposits that have eroded from the mountains and filled the basins. The thickness of these beds varies widely across the basins. The Fanglomerate is a potentially important aquifer near Parker, where wells with a yield of 15 gallons per minute per foot of drawdown have been developed in the Fanglomerate, (Metzger, et. al., 1973).

Soil samples taken at the site indicated that only the eolian (windblown) sand and silt are present. The eolian sand is tan to light tan and fine to medium grained, occurring as a deposit on the surface throughout the area.

The site soil is classified as Superstition series, which is a gravelly loamy fine sand that develops on zero to three percent slopes.

Groundwater in the Parker area occurs as both confined and unconfined aquifers. Most wells are completed in the Colorado River gravels where unconfined conditions occur. The Miocene Fanglomerate and the lower part of the Bouse Formation contain confined aquifers. Sources of recharge to the groundwater supply of the area are the Colorado River, precipitation, and underflow from areas bordering the Parker Valley.

A large amount of groundwater is lost through evapotranspiration in the Parker area. Direct recharge from precipitation is limited. The Colorado River provides almost 50 percent of the recharge to the groundwater near Parker.

The groundwater level near Parker is approximately 350 feet. The depth to groundwater in the area bordering the flood plain ranges from 70 to 300 feet below the land surface.

Chemical quality of the groundwater in the Parker project area is generally related to the source and movement of the water. The chemical quality of the groundwater is influenced by

evaporation, transpiration by native vegetation, former flooding of the river, irrigation developments, and to a marked degree, by the local geology. The groundwater beneath the flood plain is relatively poor in quality, except where irrigation water has entered the aquifer. The shallow groundwater in the nonirrigated part of the valley has twice the mineral content as the Colorado River water.

#### 4.5 Other Environmental Permits

Environmental permits acquired by the subject facility are as follows.

Industrial Wastewater Discharge Permit  
Number 1001-91  
Issued by Colorado River Joint Venture Authority  
Expiration: 8 October 1995

Land Use Permit  
Number B1122-CR 30.7  
Issued by the Colorado River Indian Tribes



## 5.0 CLOSURE PROCEDURES

### 5.1 Inventory of Waste at Time of Closure

Table 5-1 presents the location and nature of the waste materials that may be present at the facility. It also tabulates the possible quantity at each location. This inventory represents the maximum permitted quantity of each waste material in treatment and storage units. The waste material quantities are summarized by type in Table 5-2.

### 5.2 Procedures for Handling and Disposal of Waste Inventory

#### 5.2.1 Bulk Wastes

Spent carbon stored in bulk will be treated by reactivation in the Westates furnaces, and subsequently packaged for reshipment to customers. During closure, it is assumed that the facility would be operated by a third-party contractor.

Contaminated slurry recycle water and stormwater stored onsite are consumed in the carbon reactivation process and would be entirely consumed during processing of spent carbon inventory during closure. Additionally, makeup water will be required to complete reactivation of all spent carbon inventory. A portion of the makeup water will be supplied by decontamination wash water produced during closure. Scrubber blowdown wastewater (process blending water) will be analyzed and discharged to the local POTW.

The dewatered carbon transfer fines will have been treated by reactivation and will be subsequently sold as powdered activated carbon for reuse.

#### 5.2.2 Containerized Wastes

Spent carbon in containers will be treated in the carbon reactivation furnaces. Washed RCRA-empty drums will be transported to a licensed drum reclaimer for reconditioning and reuse.

### 5.3 Procedures for Decontamination and/or Disposal

#### 5.3.1 Goals and Intent of Decontamination and Closure

Westates Carbon will close the facility in a manner which minimizes the need for further maintenance.

Westates Carbon intends to implement a "clean closure" of the facility in accordance with the requirements of 40 CFR Part 265. "Background" concentrations for contaminants of concern

Table 5-1 -- Inventory of Wastes in Hazardous Waste Management Units

| HWMU No. | Designation                      | Use or Purpose   | Capacity        | Hazardous Waste Codes | Contaminants of Concern   |
|----------|----------------------------------|--|-----------------|-----------------------|---|
| 1        | Tank T1                          | Spent Carbon Holding   | 11,220 gallons  | (1)                   | <p>All waste codes listed in Table 4-1 of the Waste Analysis Plan.</p> <p>Contaminants of concern for the F001, F002, F003, and F005 wastes are the solvents which make up these mixtures.</p> <p>Contaminants of concern for P and U series wastes are comprised of the wastes themselves.</p> |
| 2        | Tank T2                          | Spent Carbon Holding   | 11,220 gallons  | (1)                   |   |
| 3        | Tank T5                          | Spent Carbon Holding   | 11,220 gallons  | (1)                   |   |
| 4        | Tank T6                          | Spent Carbon Holding   | 11,220 gallons  | (1)                   |   |
| 5        | Tank T8                          | Furnace Feed   | 1,080 gallons   | (1)                   |   |
| 6        | Tank T9                          | Incoming Slurry Recycle Water                                | 25,080 gallons  | (1)                   |   |
| 7        | Tank T11                         | Process Blending for Sewer Discharge                         | 19,080 gallons  | (1)                   |   |
| 8        | Tank T12                         | Storm Water Storage  | 25,080 gallons  | (1)                   |   |
| 9        | Tank T17                         | Scrubber Supernatant   | 500 gallons     | (1)                   |   |
| 10       | Tank V-1                         | Slurry Transfer Inclined Plate Settler                       | 2,100 gallons   | (1)                   |   |
| 11       | Tank V-2                         | Scrubber Recycle Settler                                     | 1,100 gallons   | (1)                   |   |
| 12       | Filter Press V-3                 | Dewatering Carbon Fines and Emission Control Recycle Liquids | 2 Cu. Ft.       | (1)                   |   |
| 13       | Containerized Waste Storage Area | Storage of Containerized Wastes                              | 100,000 gallons | (1)                   |   |

## Notes:

- (1) See Appendix - A in the Westates Carbon Waste Analysis Plan.

| Table 5-2 --Summary of Waste Materials In Inventory By Waste Type |                 |
|---|-----------------|
| Nature of Waste   | Quantity        |
| Spent Carbon  | 145,960 gallons |
| Contaminated Water (Slurry<br>Recycle Water)                      | 28,780 gallons  |
| Stormwater  | 25,080 gallons  |
| Process Blending Water  | 19,080 gallons  |
| Dewatered Sludge From<br>Carbon Transfer Fines                    | 2 cu. ft.       |

have been selected as the Preliminary Cleanup Target (PCT) Level for closure certification. "Background" concentrations will be determined pursuant to the procedures contained in the Westates Carbon Phased Closure Sampling and Analysis Plan, Attachment 1. Two locations will be sampled to determine background concentration levels. The variance of the values will be compared to determine if sufficient samples have been collected (i.e., low variance between samples). The Confidence Interval (CI) will be calculated for each constituent of concern and used as the background level.

U.S. EPA will be notified at least 15 days prior to implementing the sampling procedures.

Contaminants of concern for site soils are proposed as follows.

- Halogenated volatile organics (measured by EPA Method 8010)
- Aromatic and unsaturated volatile organics (measure by EPA Method 8020)
- Nonhalogenated volatile organics (measured by EPA Method 8015)
- Phenol compounds (measured by EPA Method 8040)
- Nitrogen and phosphorus containing pesticides (measured by EPA Method 8140)
- Organochlorine and other organohalide pesticides (measured by EPA Method 8080)
- Nitriles (measure by EPA Method 8030)
- 1,2-Dibromo-3-Chloropropane (DBCP)

After completion of the site sampling program described in Attachment 1, Westates Carbon will review the data and evaluate whether cleanup limits other than the background levels would be reasonable and proper. Westates Carbon reserves the right to propose final cleanup levels based

on standards other than background. Such alternative standards may be based on health-based exposure limits as defined in the Clean Closure Guidance Manual for Hazardous Waste Management Units (EPA/530-SW-87-022) and other appropriate guidance.

As described in Attachment 1, Westates Carbon will submit a report to U.S. EPA summarizing the results of site sampling and analyses. This report will include all sampling data along with field logs, and other records to support the field and laboratory data. Quality control data from the analyses will also be presented along with chain of custody records. The report will include a discussion of the data and its statistical significance and a determination as to whether site contaminants exceed Preliminary Cleanup Target (PCT) Levels. The methodology and statistical basis for making such a determination will be presented.

If PCT levels are not achieved, the report will include an evaluation of alternative cleanup standards and a proposal for such standards if deemed appropriate. If remedial action is necessary at one or more locations on the parcel, Westates Carbon will propose specific remedial activities and will provide details concerning the conduct of such activities.

#### 5.3.2 Tanks and Equipment

The tanks and equipment will be cleaned and decontaminated. Tank cleaning will consist of pressure-washing all interior surfaces and visibly contaminated exterior surfaces to remove visible traces of wastes. A portion of the wash water will be required in the reactivation of spent activated carbon inventory and will be consumed in the reactivation process. Excess wash water will be collected and transported to an appropriate permitted treatment facility. Appropriate cleaning compounds will be employed.

Following cleaning, wipe samples will be obtained from tank surfaces to confirm the adequacy of decontamination as described in the Sampling and Analysis Plan. The future use of the tank or piece of equipment will determine the cleanup level. Any tank or piece of equipment marked for disposal or scrap will be hydroblasted and the rinseate analyzed. The cleanup level of the rinseate will be to non-detect. Any tank or equipment that Westates Carbon decides to sell or place in other hazardous waste service will be hydroblasted and wipe sampled. The cleanup levels for the wipe samples will be to non-detect. The tanks and equipment will be repeatedly hydroblasted until wipe samples do not reveal contaminants at detectable levels.

#### 5.3.3 Soil and Pavement

Areas which may potentially be contaminated by Westates Carbon activities include the facility, as marked on Figure 4-1. The facility will be investigated as described in Sampling and Analysis Plan, Attachment 1.

The analysis of each soil sample will be compared with the background contaminant levels. If one or more areas are shown to be contaminated as a result of the sampling and analysis procedures proposed in this workplan, specific remedial activities will be proposed in a report to EPA. If necessary, contaminated soil will be removed using a backhoe, front loader tractor,

or other appropriate heavy equipment. Soil will be placed in roll-off containers or dump trucks which will be covered when waste transfer is not occurring and during transportation. Soil and pavement materials which are determined to be hazardous waste will be placed in licensed containers or trucks and will be transported by a licensed hazardous waste hauler to an off-site disposal site permitted to accept the waste. Waste manifests will be used to document off-site disposal of hazardous waste. After use on site, all heavy equipment will be decontaminated by high-pressure water washing or steam cleaning. The wash water will be retained and properly disposed, after analysis. A temporary containment area will be created for this purpose, using heavy weight plastic sheet with appropriate berm materials.

All sampling, soil removal and decontamination activities will be performed under the supervision of the registered professional engineer who will certify closure.

After soil removal, clean fill will be imported as needed or the site will be regraded as appropriate.

#### 5.3.4 Potential for Airborne Emissions

Reactivation of spent carbon wastes onsite will occur in the existing furnaces which incorporate emission control equipment. Air emissions from other decontamination activities are not expected to be significant due to the low quantity and concentration of waste residues expected to be present.

#### 5.4 Site Security

The site is fenced and gates are opened only when access to the facility is required. The site will be secured and gates and doors will be locked if the site is unattended. Warning signs are displayed pursuant to 40 CFR Part 264, §264.14(c) and will be maintained at the perimeter of the facility until closure is complete.

#### 5.5 Closure Certification

##### 5.5.1 Certification Activities

The engineer certifying closure or his authorized representative will observe and supervise all closure activities to ensure that the approved closure procedures are correctly performed. It is anticipated that the certifying engineer will make at least three visits to the site to observe and record the closure activities. The certifying engineer or an authorized representative will observe all closure activities from the time removal of inventory commences until completion of site sampling or decontamination. The certifying engineer will maintain all records supporting the closure certification until closure has been completed and Westates Carbon has

been released from the financial assurance requirements under 40 CFR Part 265, §265.143(9). Records will include inspection records, records of site visits, contractor logs, and analytical data.

Sampling and analysis will be performed in accordance with Attachment 1. Westates Carbon will notify EPA at least 15 days prior to implementing the sampling procedures. Remedial activities, if required, will also be supervised by the certifying engineer or an authorized representative.

Additional confirmation sampling will be performed as proposed in a remediation workplan relevant to any such work. After satisfactory completion of all closure activities, the certifying engineer will sign a certification of closure as described in Section 5.6.3 below.

#### 5.5.2 Criteria for Evaluating Adequacy

It is the intent of Westates Carbon to achieve closure of the facility which will:

- (a) minimize the need for further maintenance
- (b) control, minimize, or eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, hazardous runoff, contaminated stormwater, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere
- (c) comply with the closure requirements of 40 CFR Part 265 Subpart G and Subpart P.

There are no underground tanks which would otherwise cause a contingent closure plan to be submitted, pursuant to 40 CFR Part 265, §265.197(c).

Surface decontamination of pavement, tanks, and equipment will be performed as described above. Soil sampling described in the Sampling and Analysis Plan (Attachment 1) is expected to reveal the nature and extent of contaminated soils (if any) as well as establish background concentrations for the contaminants of concern. Based on these data the nature and extent of any remedial efforts will be determined to achieve pre-approved Preliminary Cleanup Target Levels or whether adjustments of the Cleanup Target Levels is appropriate. Closure of any potentially contaminated soil area as a landfill is not envisioned in this Closure Plan.

The proposed mechanism for evaluating whether remedial activities are necessary is as follows.

- Upon completion of the sampling and analysis program Westates Carbon and the engineer certifying closure will evaluate the data obtained along with quality assurance information to determine the adequacy and validity of the data.

- Westates Carbon will prepare a report of sampling and analysis which will include the data and supporting information and records. This report will also provide a statistical basis for evaluating the data and determining whether clean closure of each Hazardous Waste Management Unit has been achieved without further remedial action. If clean closure has not been achieved, Westates Carbon will evaluate whether health-based standards or other standards may be more appropriate as alternative final cleanup standards.
- If remedial action is necessary to achieve PCT Levels or alternative final cleanup levels, Westates Carbon will propose specific remedial actions at one or more locations on the facility.
- If remediation is required, follow-up sampling will be performed to confirm that remediation activities achieved the approved Cleanup Target Levels. A final closure report will be prepared for review and signature of the engineer certifying closure.

### 5.5.3 Types of Documentation

A report of sampling and analyses will be prepared and submitted to the U.S. EPA Region IX including a description of sampling procedures, analytical results, and quality control data. When cleanup target levels have been achieved, the owner's certification of closure and the professional engineer closure certification will be completed and forwarded to EPA. Examples of the Certification Statements are included below.

### **PROFESSIONAL ENGINEER CLOSURE CERTIFICATION**

I, \_\_\_\_\_, a professional engineer registered in the State of \_\_\_\_\_, hereby certify to the best of my knowledge and belief, that I have made visual inspection(s) of the aforementioned hazardous waste management units, and closure of the aforementioned facility has been performed in accordance with the Closure Plan for the facility approved by the Regional Administrator of Region IX of the United States Environmental Protection Agency.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

State Professional Engineer License No. \_\_\_\_\_

Business Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

## OWNER OR OPERATOR CLOSURE CERTIFICATION

The owner or operator must certify that the activities performed in closing the facility are in accordance with the specifications of the Closure Plan previously approved by the Regional Administrator. By signing this certification Westates Carbon-Arizona, Inc. has certified that the Closure Plan has been fully implemented. Accordingly, the certification will be straightforward, no matter how complex closure itself will be.

I, \_\_\_\_\_, of Westates Carbon hereby certify that, to the best of my knowledge and belief, the above-named hazardous waste facility has been closed in accordance with the attached approved closure plan, and that the closure was completed on the \_\_\_\_ day of \_\_\_\_\_, 199\_ (or 20\_\_).

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## 6.0 CLOSURE SCHEDULE

### 6.1 Expected Date of Closure

Westates Carbon believes the facility to be an important element of the company's pollution control activities in the western United States. From a practical standpoint, the facility may have an indefinite life, with future improvements and equipment replacement as necessary. However, to comply with federal regulations regarding the projected date of closure, the facility is deemed to have a design life of 20 years; therefore, closure would occur in 2012.

### 6.2 Frequency of Partial Closures

Partial closure of the facility is not envisioned.

### 6.3 Closure Milestones

Table 6-1 presents projected milestones for closure of the facility.

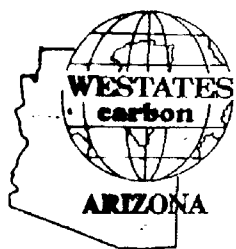
### 6.4 Requests For Extensions of Deadlines for Handling Inventory and Completion of Closure

Based on the projected closure schedule presented above, closure could be completed in 98 days. Pursuant to 40 CFR Part 265, §465.113 all hazardous wastes must be removed within 90 days and the facility must close in 180 days from the date of the last receipt of wastes unless an extension is granted. Westates Carbon projects that closure can be completed within the specified time periods. If an extension to the above time limits is required, Westates Carbon will apply for such an extension at least 30 days prior to the subject deadline.

| Table 6-1 -- Project Closure Milestones                              |                |
|--|----------------|
| Milestones   | Projected Date |
| Westates Carbon notifies U.S. EPA of intent to close facility        | Day -180       |
| Final date waste accepted  | Day 0          |
| Spent carbon reactivated   | Day 14         |
| Site decontamination complete  | Day 35         |
| Westates Carbon Notifies U.S. EPA of intent to commence sampling     | Day 35         |
| Site sampling commences  | Day 51         |
| Site sampling completed  | Day 54         |
| Analysis complete  | Day 68         |
| Report of sampling and analysis submitted to U.S. EPA                | Day 98         |
| Closure certification (assuming no further decontamination required) | Day 98         |

## 7.0 REFERENCES

Metzger, D.G., O.J. Loeltz, and Burdge Irelna, 1973, Geohydrology of the Parker-Blythe-Bibola Area, Arizona and California: Water Resources of Lower Colorado River - Salton Sea Area, U.S. Geological Survey Professional Paper 486-G.



# WESTATES CARBON-ARIZONA, INC.

2523 Mutahar Street - Post Office Box E  
Telephone (602) 669-5758 Fax (602) 669-5775

## FAX COVER SHEET

DATE: 12-20-93 FAX NO. \_\_\_\_\_  
TO: Amy \_\_\_\_\_  
FROM: Tell \_\_\_\_\_  
Total pages including  
including cover sheet: 3

If you do not receive complete transmittal, please call (602) 669-5758 and ask for Becky.

=====

COMMENTS: \_\_\_\_\_  
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**"We will maintain maximum customer satisfaction as our top priority in every product we design, manufacture and ship and every service we perform. Commitment to meeting our customer needs shall govern every facet of our operations, internally and externally."**

*A Wheelabrator Technologies Company*

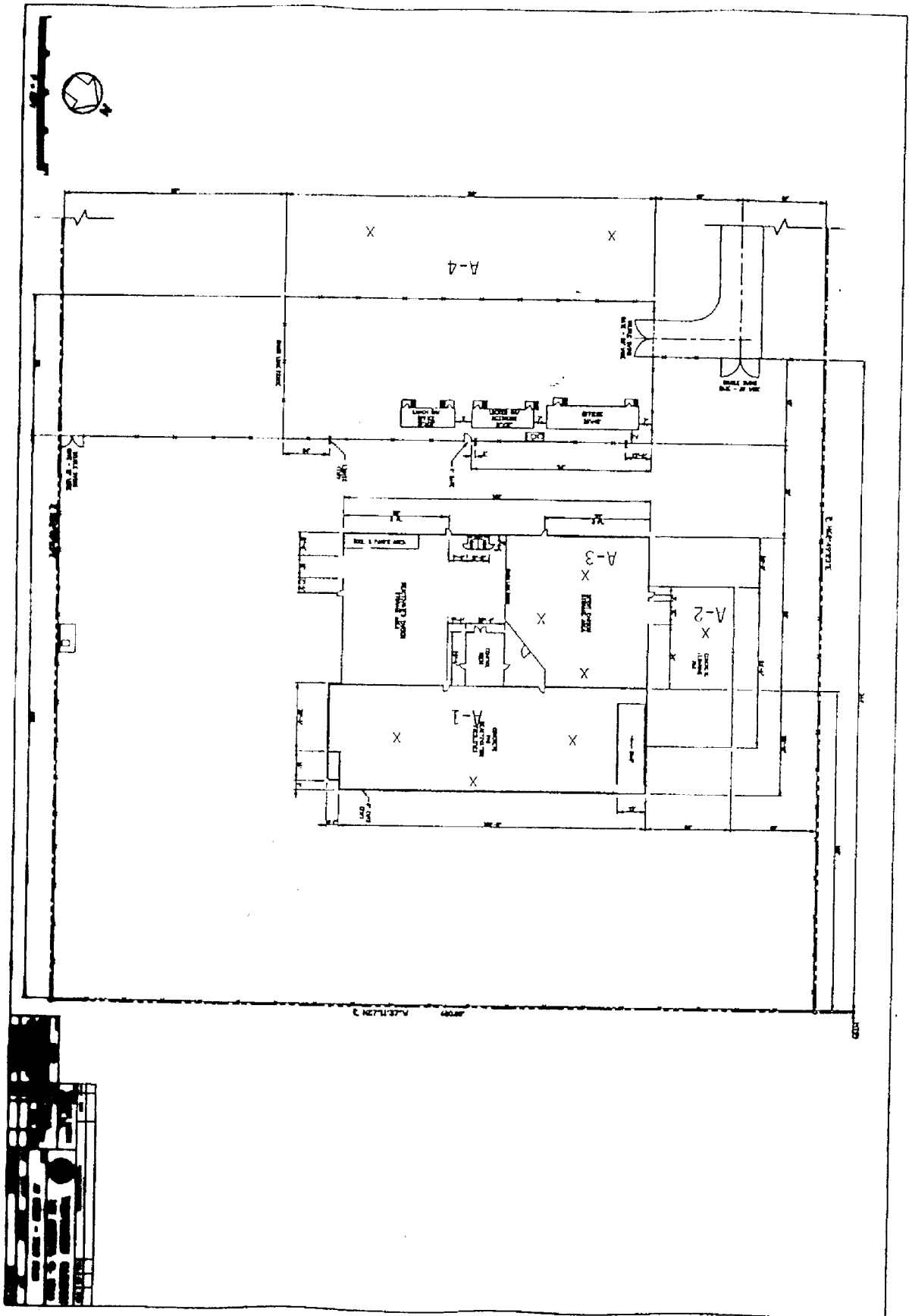


FIGURE A1-1 SAMPLING PLAN

## 4.0 DETAILED DRILLING AND SAMPLING PROCEDURES

### 4.1 Drilling and Sampling Locations

Boreholes shall be drilled at locations identified in the Sampling Plan (Figure A1-1). Locations shall be measured and marked by the Site Manager using the site boundary, fence line, or other known location as a reference. Sampling locations have been chosen based on biased sampling to investigate areas used for storage and handling of hazardous wastes. A brief discussion of the rationale for choosing sampling locations is discussed below.

- Area 1 - Three (3) boreholes will be drilled to a depth of five feet below the paved surface. Soil samples will be obtained from the surface, and at depths of one foot below the surface and five feet below the surface in each borehole.
- Area 2 - One (1) borehole location has been selected in this hazardous waste loading and unloading area. The borehole will be drilled to a depth of five feet below the surface. Samples will be obtained from the surface and at depths of one foot below the surface and five feet.
- Area 3 - Three (3) borehole locations have been selected in this waste storage and treatment area. Each borehole will be drilled to a depth of five feet. Samples will be obtained from the surface, one foot below the pavement and five feet below the pavement.
- Area 4 - Samples will be obtained in Area 4 to determine background levels for contaminants of concern. This area is located upgradient of the facility on land leased by Westates Carbon and is also upwind of the facility, based on a determination of prevailing winds. No hazardous wastes have been used or stored on this area. TWO boreholes have been located near the center of this area. Samples will be obtained from depths of one foot and five feet below the pavement.

## **Attachment 3**

### **Westates Carbon, Inc. RCRA Facility Closure Closure Cost Estimate**

#### **1.0 Introduction**

This closure cost estimate includes costs associated with the cleaning and site investigation described in the **Westates Carbon RCRA Facility Closure Plan**, dated April 3, 1992. The referenced closure plan details the procedures proposed for closure of the Westates Carbon facility described in the Part A application dated August 30, 1991 and operating under Interim Status. All costs associated with the activities described in the closure plan are included in this closure cost estimate.

All or a portion of the closure activities described in the above referenced plan may be undertaken by trained Westates Carbon personnel. However, for estimating purposes all activities described in the closure plan are assumed to be accomplished by a third-party contractor at prevailing prices for such services.

All costs are rounded to the nearest ten dollars.

#### **2.0 Inventory (Bulk and Containerized) Disposal**

It is assumed that all bulk spent activated carbon and associated bulk wastes in storage tanks will be disposed by reactivation in the facility. The following quantities of wastes will be treated:

546,375 pounds of spent carbon (includes 374,332  
pounds of spent carbon transferred from  
containers)

28,780 gallons of recycle slurry water

25,080 gallons of rainwater

It is estimated that all spent carbon and associated wastes can be processed in 19 24-hour work days. An additional 11,643 gallons of makeup water will be required. This water will be supplied by decontamination wash water produced during closure of storage units.

**Labor:**

A staff of one supervisor and two technicians will be required. The estimated cost for utilities, consumable supplies, and chemicals related to treatment is \$ 283/day.

|  |           |
|--|-----------|
| 1 Supervisor x \$25.00/hr x 24 hrs/day x 19 days | \$ 11,400 |
| 2 Techs x \$14.85/hr x 24 hrs/day x 19 days      | \$ 13,540 |

**Utilities and Consumables:**

|                      |          |
|----------------------|----------|
| \$ 283/day x 19 days | \$ 5,380 |
|----------------------|----------|

**Sludge Disposal:**

It is estimated that 2 cubic feet of dewatered carbon fines will be onsite at the time of closure. This material can be sold for use in other processes. However, for purposes of the closure cost estimate, it is assumed that the material will be placed in a D.O.T. drum and disposed by incineration at MSP, Inc., St. Rose, LA at a cost of \$275/drum including transportation . . . . . \$ 280

**Effluent Disposal:**

A total of 19,080 gallons of process blending water in Tank T-11 will require disposal to the sewer. There is no charge for disposal. However, it is estimated that one set of chemical analyses will be required by an outside laboratory at a cost of \$1000 . . . . . \$ 1,000

|                                  |           |
|----------------------------------|-----------|
| Subtotal Bulk Inventory Disposal | \$ 31,600 |
|----------------------------------|-----------|

**3.0 Facility Decontamination**

**Labor:**

It is estimated that it will require approximately one week (five day work week) for decontamination of all treatment equipment and tanks. An additional week would be required to decontaminate all pavement by pressure washing. The decontamination crew is assumed to consist of a foreman and three



technicians who work for a third-party contractor. A 35 gpm pressure washing machine will be used which is estimated to operate approximately 20% of the time. Approximately \$200 in consumable supplies would be required per day.

|  |          |
|--|----------|
| 1 Foreman x \$25/hr x 8hr/day x 10 days . . . . .        | \$ 2,000 |
| 3 Technicians x \$14.85/hr x 8hr/day x 10 days . . . . . | \$ 3,560 |

Supplies:

|                               |          |
|-------------------------------|----------|
| \$200/day x 10 days . . . . . | \$ 2,000 |
|-------------------------------|----------|

Equipment Rental:

|                               |          |
|-------------------------------|----------|
| \$200/day x 10 days . . . . . | \$ 2,000 |
|-------------------------------|----------|

Wastewater Disposal:

35 gpm x 8 hrs/day x 10 days x 0.20 x 60 min/hr: 33,600 gallons. 11,643 gallons will be consumed in reactivation of spent carbon, leaving 21,957 gallons for disposal. Wastewater will be hauled to Chem-Tech Systems, Vernon, CA for treatment and disposal at a cost of \$.40/gallon.

|                                      |          |
|--------------------------------------|----------|
| 21,957 gallons x \$.40/gal . . . . . | \$ 8,730 |
|--------------------------------------|----------|

Transportation:

21,957 gallons /5,000 load = 5 loads

|  |          |
|--|----------|
| 5 loads x \$65/hr. x 12 hours/load . . . . . | \$ 3,900 |
|--|----------|

|                                    |           |
|------------------------------------|-----------|
| Subtotal Decontamination . . . . . | \$ 22,190 |
|------------------------------------|-----------|

#### 4.0 Site Sampling

##### Drilling:

A total of 9 boreholes will be drilled. A total of 25 soil and pavement samples will be obtained. Drilling is expected to be require three days including mobilization time.

\$1,400/day x 3 days . . . . . \$ 4,200

##### Analyses:

25 analyses x \$740/analysis suite . . . . . \$ 18,500

##### Wipe Sampling:

A total of 26 wipe samples will be obtained. It is estimated that a technician can obtain these samples in two work days. Analytical costs will vary depending upon the contaminants of concern applicable to each tank, but are estimated at \$200 per sample.

##### Labor:

1 Tech x 2 days x 8 hrs/day x \$14.85/hr . . . . . \$ 240

##### Analyses:

26 samples x \$200/sample . . . . . \$ 5,200

##### Health and Safety Protection:

Consumable Supplies. Includes drums for soil cuttings and wastewater, disposable clothing, and monitoring devices . . . . . \$ 500

## Drill Cuttings and Wastewater Disposal:

It is assumed that five drums of drill cuttings and two drums of wastewater will require disposal at Statewide Environmental Services, Los Angeles, CA. Statewide Environmental Services is a transfer station permitted to accept such wastes. The wastes will be combined into bulk shipments with similar wastes and transported offsite to permitted treatment or disposal facility.

|                                |          |
|--------------------------------|----------|
| Transportation: 12 hrs x 65/hr | \$ 780   |
| Disposal: 7 drums @ \$150/drum | \$ 1,050 |

Subtotal Drilling and Sampling .....\$30,470

## 5.0 Engineering Supervision and Evaluation

### Costs:

Costs are included for an independent consultant to perform all management and supervision efforts related to closure of the facility. Contractors will be acting under the direction of the Registered Professional Engineer who will certify the adequacy of closure. Estimates include travel time from the Los Angeles Basin or the Phoenix area.

### Supervision of Equipment Cleaning and Soil Sampling:

|                                     |          |
|-------------------------------------|----------|
| Senior Engineer 72 hours @ \$100/hr | \$ 7,200 |
| Staff Engineer 72 hours @ \$65/hr   | \$ 4,680 |

### Data Evaluation, Cleanup Target Review and Sampling and Analysis Report Preparation:

|                                  |          |
|----------------------------------|----------|
| Principal - 8 hrs @ \$125        | \$ 500   |
| Senior Engineer 8 hrs.@\$100/hr. | \$ 800   |
| Staff Engineer 20 hrs.@\$65/hr.  | \$ 1,300 |
| Drafting and Clerical            | \$ 500   |

**Final Report Preparation and Engineer Certification:**

|  |          |
|--|----------|
| Principal Engineer - 4 hours @\$125/hr ..... | \$ 500   |
| Senior Engineer - 16 hours @\$100/hr .....   | \$ 1,600 |
| Staff Engineer - 8 hours @ \$85/hr .....     | \$ 680   |
| Drafting and Clerical .....                  | \$ 500   |

Subtotal Engineering and Certification .....

|  |           |
|--|-----------|
|  | \$ 18,260 |
|--|-----------|

Subtotal Closure .....

|  |           |
|--|-----------|
|  | \$102,520 |
|--|-----------|

**6.0 Overall Contingency**

An overall contingency of 10% is provided to cover unforeseen costs and expenses associated with the closure.

|                         |           |
|-------------------------|-----------|
| Contingency @ 10% ..... | \$ 10,240 |
|-------------------------|-----------|

**7.0 Total Closure Cost .....**

|  |                  |
|--|------------------|
|  | <b>\$112,760</b> |
|--|------------------|



WMX Technology and Services, Inc.

**VIA FEDERAL EXPRESS**

DATE: August 13, 1993

TO: Jeff Walsh, WESTATES CARBON-ARIZONA

FROM: Roberta Krennek, WMX Risk Management *rk*

SUBJECT: Policy #: CPCH92-0011, Endorsement #2  
Coverage: \$117,642 Closure  
Term: 06/01/93 to 06/01/94  
For: WESTATES CARBON-ARIZONA, INC.  
Parker, Arizona

Enclosed is Endorsement #2 for CPCH92-0011 increasing financial assurance closure for the Parker, Arizona site from \$112,760 to \$117,642 effective 06/01/93. The endorsement should be attached to the policy and become a part of it.

Also included is an updated Certificate of Insurance. The original Certificate should be forwarded to the Arizona EPA Region IX as evidence of increased coverage; a copy is included for your files.

Additional premium for the increase in the amount of \$19.53 will be processed through Wheelabrator's Advance Account #17B-03.

By copy of this letter, a duplicate Endorsement and a copy of the Certificate are being forwarded to Mike Troup to keep his file up to date.

Ruth Rottmann has asked me to include your updated Certificates of sudden and non-sudden occurrences; copies are included.

If there are any questions, contact me at 708/572-3016 or Ruth at 708/572-3006.

rak  
Enclosures

cc: Brian Anderson  
Monte McCue  
Mike Troup w/enclosures  
Leo Winstead w/enclosures

# NATIONAL GUARANTY INSURANCE COMPANY

7 BURLINGTON SQUARE, 6th FLOOR • BURLINGTON, VT 05401 • 1-800-876-6442

## CERTIFICATE OF INSURANCE

### CLOSURE

Name and Address of Insurer (hereinafter called the "Insurer"):

NATIONAL GUARANTY INSURANCE COMPANY

7 Burlington Square, 6th Floor, P.O. Box 530 Burlington, Vermont 05402-0530

Name and Address of Insured (hereinafter called the "Insured"):

WESTATES CARBON-ARIZONA, INC.

2250 Tubeway Avenue, Los Angeles, California 90040

Facilities Covered:

EPA Identification Number: AZD902441263

Name: WESTATES CARBON-ARIZONA, INC.

Address: 2523 Mutahar Street

Parker, Arizona 85344

Policy Amount: \$117,642.00

Policy Number: CPCH92-0011

Effective Date: June 1, 1992

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure for the facilities identified above. The Insurer further warrants that such policy conforms with the requirements of 40 CFR 264.143(e)(1) and 40CFR 264.143(e)(2) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Arizona Department of Environmental Quality, the Insurer agrees to furnish to the Arizona DEQ a duplicate original of the policy listed above including all endorsements thereon.

I hereby certify that the wording of this certificate is substantially similar to the wording specified in 40CFR 264.151(e) as such regulations were constituted on the date shown immediately below.

Authorized signature for Insurer

Date

June 1, 1993

Donald S. Haufe

Vice President/Underwriting

Name of person signing

Title of person signing

Witness

Roberta A. Krenek

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. National Union Fire Insurance Company of Pittsburgh, PA, (the "Insurer") of 70 Pine Street, New York, NY 10270 hereby certifies that it has issued liability insurance covering bodily injury and property damage to Waste Management, Inc. and its subsidiaries (the "Insured"), of 3003 Butterfield Road, Oak, Brook, IL 60521 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at:

Name, Address

Westates Carbon-Arizona, Inc.  
2523 Mutahar Street  
Parker, AZ 85344

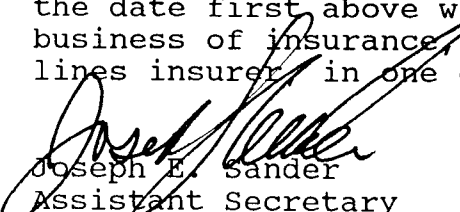
EPA Identification Number

AZD982441263

for non-sudden accidental occurrences. The limits of liability are \$3,000,000 each occurrence and \$6,000,000 annual aggregate exclusive of legal defense costs. The coverage is provided under Policy No. PRM-9210461 issued on April 25, 1993. The effective date of said policy is April 25, 1993.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:
- (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA) the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer or the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having any insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator of the EPA Region in which the facility is located.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator of the EPA Region in which the facility is located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j), as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

  
Joseph E. Sander  
Assistant Secretary  
Authorized Representative of  
National Union Fire Insurance Co.  
of Pittsburgh, PA  
70 Pine St.  
New York, New York 10270

CERTIFICATE ISSUED TO:

Regional Administrator  
USEPA - Region IX  
215 Fremont St.  
San Francisco, CA 94105

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Name, Address

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Parker, AZ 85344

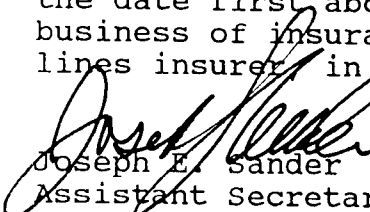
EPA Identification Number

AZD982441263

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  - (c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA) the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer or the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having any insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator of the EPA Region in which the facility is located.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator of the EPA Region in which the facility is located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j), as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

  
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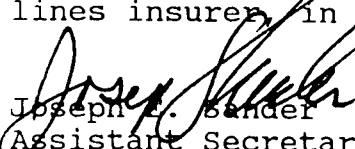
AZD982441263

COPY

for sudden accidental occurrences. The limits of liability are \$1,000,000 each occurrence and \$2,000,000 annual aggregate exclusive of legal defense costs. The coverage is provided under Policy No. PRM-9210461 issued on April 25, 1993. The effective date of said policy is April 25, 1993.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:
- (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
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